FLEET OWNER
McGRAW-HILL'S MAGAZINE OF FLEET OPERATIONS
JANUARY · 1958
50 CENTS

THE YEAR AHEAD

SPECIAL & EXCLUSIVE
3 FORECASTS

- 1958 outlook for fleet operations
- Where the national economy is headed
- Should you build this year or wait

COMPLETE CONTENTS ON P5

Check the system that offers Biggest Service Savings...

Alemite overhead hose reels and pumps!

No equipment to move!
Service lines are always handy,
yet out of the way when not in use!

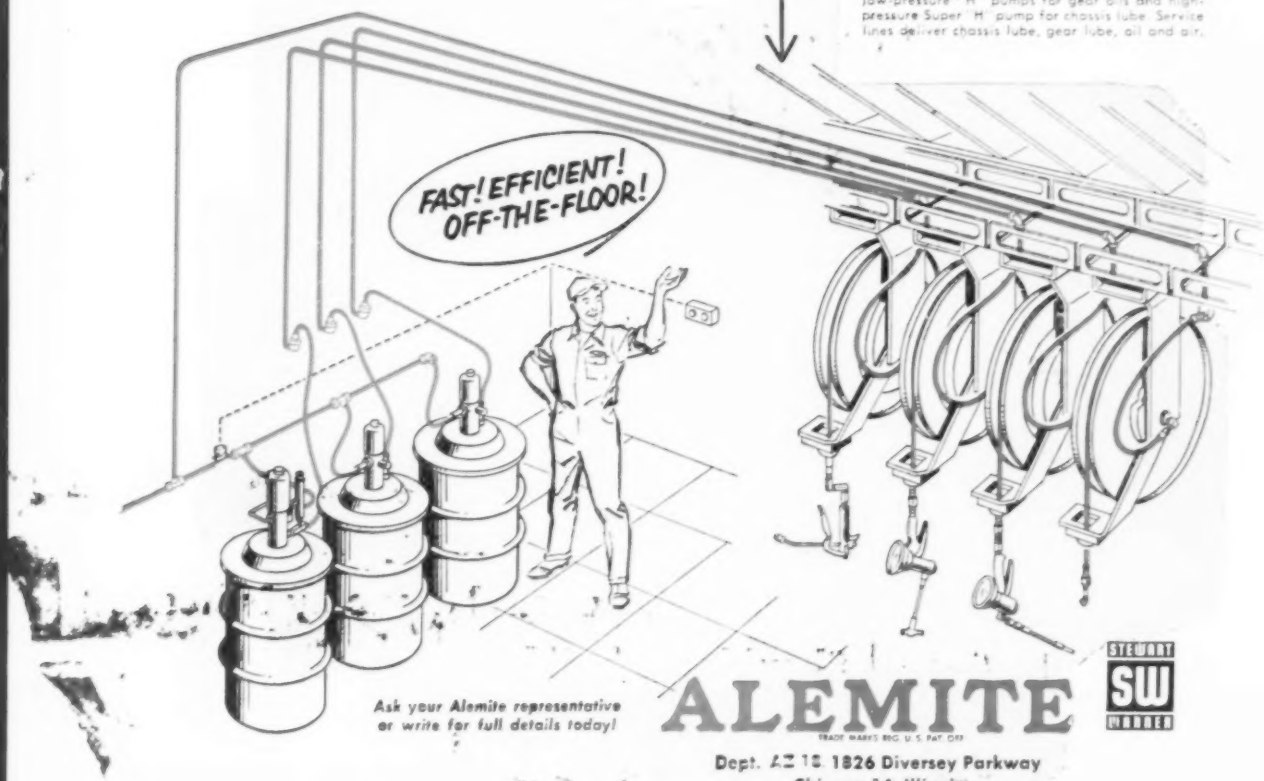
With modern Alemite Overhead Hose Reels and Alemite Air Powered Pumps you save valuable service time . . . cut maintenance costs . . . boost productive road time of every vehicle!

Equipment is easier, faster to use for every lubrication job . . . and it's always where you want it . . . right when you want it. No effort-wasting refills—no moving of equipment to each individual job.

Only Alemite offers all this protection: (1) a 27-month warranty on sealed-in pump power units; (2) a 12-month warranty on equipment; (3) a 12-month warranty on high-pressure hose.

Check these Alemite Reel advantages: • Easy one-man installation • Easiest to operate • Sure, powerful performance, every time • Exclusive new operating features for superior performance.

Typical Alemite Hose Reel system, showing two low-pressure "H" pumps for gear oils and high-pressure Super "H" pump for chassis lube. Service lines deliver chassis lube, gear lube, oil and air.



Ask your Alemite representative or write for full details today!

ALEMITE

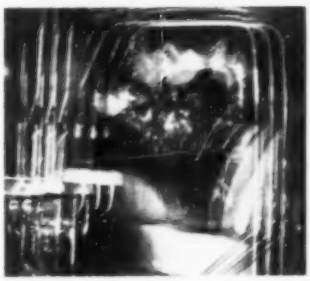
TRADE MARKS REG. U. S. PAT. OFF.

STEWART SW WARNER

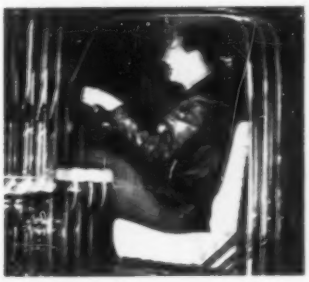
Dept. AZ 18 1826 Diversey Parkway
Chicago 14, Illinois

"I did like you said, boss—I called driver McMuscle a sissy for insisting on a full-depth Airfoam seat!"

This shakedown costs more than you think:

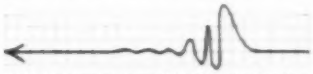


Spring-and-Padding Truck Seat in Action — multiple-exposure photo shows how such seats amplify drags and jars of normal truck operation. Also, how time-lag in spring action bounces driver UP as controls come DOWN. Driver's reflexes attempt constant compensation during run, resulting in cramped muscles, frazzled nerves, weariness and inefficiency. Even the cushions wear out faster!

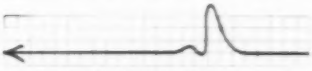


AIRFOAM helps drivers, cuts repairs, replacements:

Full-Depth AIRFOAM Truck Seat in Action—multiple-exposure photo shows how over half-a-million fresh-air cushions in each cubic inch of AIRFOAM muffle and absorb drags, jars and jounces. AIRFOAM, being all one piece, also distributes driver's weight, helps him ride with the controls. Result: fresher, happier, more efficient drivers—cushions that don't sag, snag or break down.



Actual "Damping Curve" Chart—showing how spring-and-padding truck seat bounces repeatedly after bumps.



Actual "Damping Curve" Chart—showing how AIRFOAM truck seat bounces less and quickly returns to normal after bumps.

Goodyear, Engineered Products Dept., Akron 16, Ohio

You can specify Full-Depth AIRFOAM seats and backs as original equipment on any truck!

Airfoam MADE ONLY BY GOODYEAR

The World's Finest, Most Modern Cushioning

Airfoam—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

LOW COST MILEAGE IS HIS BUSINESS

Mr. Fred P. Baker, president Baker Truck Rental, Inc., and past president National Truck Leasing System.

• Baker Truck Rental, Inc., of Denver, Colorado, leases more than 2500 trucks to business firms, supplying everything but the driver.

• According to Fred P. Baker, executive head of Baker Truck Rental, and of all the Ryder System leasing companies, two of the most important rules to follow in getting low cost-per-mile out of your fleet are—

"One, pick a petroleum brand of uniform high quality. Two, make sure you can get it in all 48 states, then stick to it.

"Baker leased trucks operate under difficult conditions—from the heat of the western desert to the cold extremes of high mountain passes—and many times encounter both conditions within the same day. It pays us to give them the full benefits of Texaco petroleum products.

Chassis and wheel bearings of Baker leased trucks get low-cost protection against rust and wear with multi-purpose *Texaco Marfak Heavy Duty Special 2*. It seals out dirt and moisture for many extra miles—won't pound or squeeze out, and requires no seasonal change. Truck engines are also Texaco-lubricated and protected.

"Texaco is available everywhere. In this way we know our trucks are fully protected with the same fine products. And, at the same time, we get a periodical check on our cost-per-mile figures which we must have where trucks are leased on fixed rates."

According to Mr. Baker, many member firms of the National Truck Leasing System, of which Baker Truck is a charter member, use Texaco fuels and lubricants *exclusively* for the very same reasons.

There is a full line of Texaco Lubricants for your operation wherever you are. A Texaco Lubrication Engineer will help you select the proper ones. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States—or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

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IN ALL 48 STATES

LUBRICATION IS A MAJOR FACTOR IN COST CONTROL

(PARTS, INVENTORY, PRODUCTION, DOWNTIME, MAINTENANCE)

Born December 7, 1957... Already 70 Years Old...

with greater Facilities for serving YOU!

Leading manufacturer of passenger car and truck frames, air and vacuum power brake systems for trucks, trailers, buses and passenger cars, as well as other air controls —

THE MIDLAND STEEL PRODUCTS CO.

merges with

veteran designer and builder of engineered atmosphere systems for all major industries —

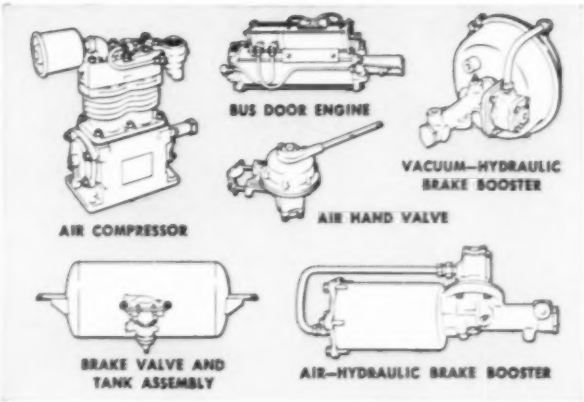
J. O. ROSS ENGINEERING CORPORATION

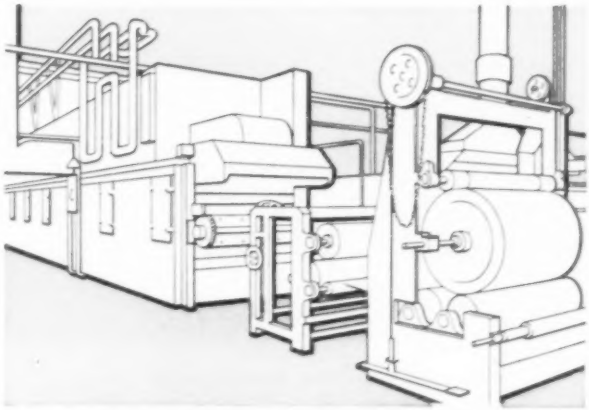
and Subsidiaries

to form

MIDLAND-ROSS CORPORATION

with greater facilities, more manpower, and additional products to serve you, the customer!





Ross Plastic Treating Line handles entire processing, from coating to rewinding.

Seventy years of combined business and development experience are now available to present and future customers of Midland-Ross Corporation, with its 6500 employees, 10 manufacturing plants, and $100,000,000 sales volume.

While each division will continue a decentralized form of operation, there will be substantial pooling of engineering talents for research and development, resulting in accelerated improvements in M-R's products and services.

We will welcome — and appreciate — every opportunity to serve you.

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STORIES TO WATCH FOR IN **FLEET OWNER** JANUARY 1958

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Forecast: What does business see ahead? 56

'58 is going to be another good year – not the best – but it won't go into the records as a big bust. Here's how the economists measure the next 12 months. It's an industry-by-industry rundown on the new year.

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2 CONTESTS EVERY FLEET OPERATOR SHOULD ENTER

How to measure your fleet's appearance 61

Fleet men are learning that slapdash use of color doesn't pay off, can do harm. Now FLEET OWNER offers you a way to check your vehicles' looks.

There's a bigger M.E. Contest for '58 64

Bigger in size, bigger in worthwhile awards – that's the new Maintenance Efficiency Contest. You'll want to check the benefits, learn how to enter your fleet this year.

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Two years and still running. That's the story of 100 clutches this fleet overhauled. The key to getting such results is a steel wire insert for the fulcrum edge.

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In its shop, Consolidated Freightways built dockboards designed to solve its own problems – they're extra strong, safety engineered, and space saving, too.

12 dockmen do a 19-man job – and better 74

Better because this new conveyor system means more than a labor-saving. It means increased efficiency, smoother, faster work to solve a ticklish time problem.

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FLEET OWNER
JANUARY, 1958 • VOL. 53, NO. 1

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Watch for these stories. They're "in the works"

How you can lick tomorrow's expansion problems. The answer one fleet found—and proved successful—was a training course for management personnel. The result is that there are men ready to step into every new opening, men familiar with the company's methods and aims.

Six sharp ideas for use in your shop. Been running low on inspirations lately? Then you'll want to check these shop-born labor savers dug up by FLEET OWNER editors in the field. There'll be something here for every shop.

Here come the facts that spell efficiency. You'll find them in the 1958 Data Book, an up-dated, easy-to-use model of the "special" issue started last year. FLEET OWNER checked to see what you liked or didn't like last time around. And your ideas, your selections called the shots in this year's book.

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VARIABLE-RATIO

POWER STEERING

faster for cornering . . . slower for straight-ahead

- **What's the advantage** of *variable-ratio* steering? For example . . . 18:24:18?
- **Variable-ratio** provides faster steering and quicker recovery for cornering, and slower steering and greater stability for high-speed, straight-ahead driving.
- **Variable-ratio** is an exclusive feature of Ross Hydrapower power steering and Ross Cam & Lever manual steering. No other type of steering gear provides it.
- **Ross makes all three** types of hydraulic power steering—integral, semi-integral and linkage—and invites discussion of *any* steering problem, power or manual, variable or fixed ratio.

Ross

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Get his free custom service that helps reduce down time

It's simple. Your jobber checks your equipment, and puts into your shop a select stock of oil seals your mechanics use regularly. He maintains the stock and modifies it as your equipment changes.

You always have seals when needed, don't add down time waiting for seals to arrive. You get perfect replacement since Nationals are original equipment.

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January's Story Behind the Story:

Six New Changes Made This Month

For the past year FLEET OWNER has been doing research on the six changes you'll find we've made in this issue. Briefly, here's how the research is done: six times a year an independent research company (Mills Sheppard) interviews 150 to 170 of our readers. The readers are selected (a different batch each time) so that they give us the correct geographical and vocational representation. They are asked the following questions on each editorial item in the magazine: "Do you remember having seen this article?" "Did you start to read it?" "Did you read half or more of the article?"

From this research we can judge, among other things, the interest of our readers in various subject material and departments.

Based on research findings . . .

. . . you'll find two new departments in this issue (Across the Editor's Desk, p 200 and a report from our Detroit Editor, p 12) plus a different presentation of four departments we've been running for more than two years (Labor, p 24, Medical column, p 28, Passenger Cars, p 16, and Short Reports on New Developments, p 20).

Without going into all the details on each department, here's an example of what we tested and the reasons for the changes: in order for a news item to rate even one-third of a page in FLEET OWNER it has to be pretty important. However, each month we still have plenty of news items that are worth space in the magazine but are too short to fill one-third of a page. Often we have been able to combine two or more related news items into a single story so that the story would be worth one-third of a page or more. But this still left us with a number of items that were short and unrelated.

Recently we decided that the solution to the problem was to combine these short unrelated news items under a single head . . . and the readership you have given this round-up type story has proved you like it too.

We've been testing this technique . . .

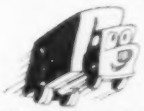
. . . in the split pages for the past eight months. You may have read the department yourself—under the title "Short Reports on New Developments." Anyway, surveys of each of the eight issues have shown that 60% or more of FLEET OWNER readers were reading the department.

This was a good enough indication for us. So, with this issue you'll find the "Short Reports" graduated to a full page. The other changes were made on this research basis also—and, although there are many more reasons, the prime reason is that they represent reader preference.

End cold weather damage to your Gas or Diesel Engines

INSTALL

KIM Hotstart electric pre-heater



QUICK, EASY STARTS

ELIMINATES WARM-UP TIME

REDUCES ENGINE WEAR

KIM HOTSTART plugs into the electric circuit when engines are not in use. It draws cold water from the engine, heats it, then circulates it back through the engine. No need for heated terminals. Engines remain warmed-up; start quickly. You don't use as much fuel and spend less on repair bills. Four KIM models are available. Installation is simple. See your automotive supplier or write for literature.

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West 917 Broadway, Spokane 1, Washington

HOLDOVER FOR STOPOVERS!

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EUTECTIC BLOWER UNITS

A compact holdover blower system that maintains uniform temperature in any high temperature truck body.

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Truk-Cel EUTECTIC BLOWERS

DOLE

WHITE "9000" FLEET HELPS INTO NEW MARKETS...KEEP FOOD

White "9000" Tandems Boost Payloads and Power for Dependable Schedules

Today's big-volume business calls for bigger payloads, higher mileages and more exacting schedules.

That's why it is more important than ever for you to look into the extra-earning power advantages of White Trucks for your business.

National Tea Company has been spreading its supermarkets as far west as Colorado—east to Ohio and from Canada to the Gulf—from its Chicago headquarters.

With these rugged, new White "9000" Tandems, increased payloads can be accommodated on these longer distances . . . shorter trip times . . . with low operating cost.

Find out how Whites can be engineered to your business for extra efficiency and economy.

THE WHITE MOTOR COMPANY • Cleveland 1, Ohio

For more than 55 years the greatest name in trucks

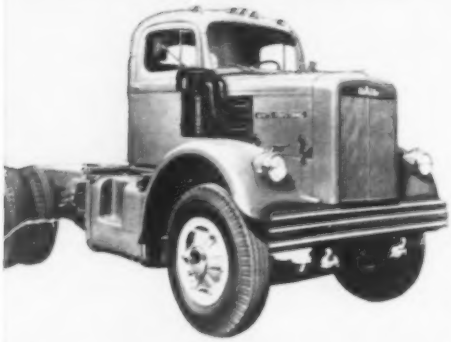
National Tea Company Keeps Relay Operations on Schedule to the Minute with new White "9064T" Fleet

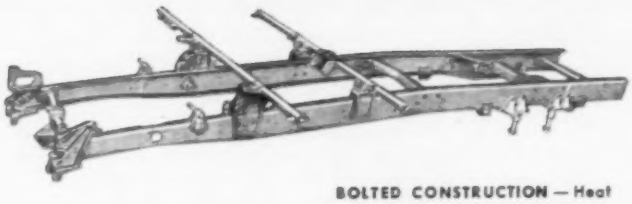
Big payload National Food Store deliveries are being made throughout 20 central states by a fleet of 150 Whites of which 30 are the "9000" Tandems—now in service—others on order for 1958!

National's Transportation supervisors, report excellent driver reaction, outstanding fuel mileage, easier maintenance and new safety advantages for maximum dependability.

White

SEE HOW THE WHITES ARE BUILT TO





THIS CHASSIS STANDS TOUGHEST SCHEDULES — The new 90-inch dimension of the White "9000" meant a new concept in chassis design—multi-functional units to add strength—save weight. New riding ease, too, because of improved roadability and stability.

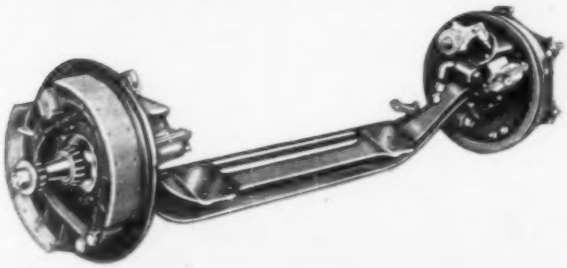
BOLTED CONSTRUCTION — Heat treated alloy steel frame rails are stronger and lighter. Chassis strength is improved, maintenance facilitated and longer life assured by bolted construction, high strength steel frame brackets and "saddle-mounted" tubular crossmembers.

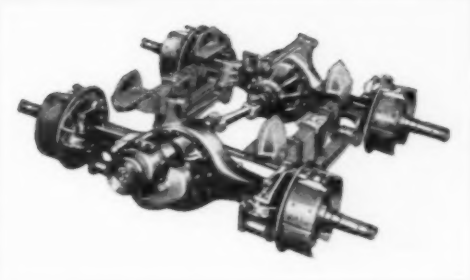
NATIONAL TEA COMPANY EXPAND DISTRIBUTION COSTS DOWN

White "9000" Tandems, Steering Pushers and Two-Axle Tractors are available with White Mustang Gasoline Engines or with Diesel Power.

ADD LIFE, CUT TRANSPORTATION COSTS

WIDER TREAD FRONT AXLES—Rugged White front axles have greater rated capacity for more payloads—wider tread for improved maneuverability. Increased axle strength adds stability and safety.





RUGGED BRAKES ADD SAFETY—Longer wear and greater stopping ability result from use of the new and sturdy pressed steel brake shoes. Exclusive liners are thickest at center and wear better . . . new light nylon camshaft bearings wear up to four times longer . . . save up to 40 lbs. weight per axle.

FLEET OWNER Reports from Detroit:

Are More MPH Worth Less MPG?

UNLESS YOUR CARGO carries a premium rate based on speed of delivery, boosting the speed can cost you big money—what you save in labor, and vehicle-use time can be more than eaten up by additional fuel costs you'll have to bear.

Figures developed by Cummins Engine Co. show what happens to fuel economy as speed is increased:

Cruise Speed	Average Speed	Average as % of Cruise	MPG at Cruise
30	27.8	93	8.2
35	31.4	90	8.0
40	34.8	87	7.66
45	37.8	84	7.25
50	40.2	80	6.80

As a rule of thumb, based on these figures, you can expect fuel economy to drop about one-tenth of mile on a gallon of fuel for every mile-per-hour increase in cruise speed. Fuel economy will drop around one-seventh of a mile per gallon for every mile-per-hour increase.

Here's a good example: on a typical 300-mile highway run a truck cruises at 40 mph. But its average speed for the entire trip will be about 34.8 mph. The trip takes roughly 8.6 hours, and fuel consumed figures to be 39.2 gallons.

By increasing cruise speed to 50 mph, average speed for the trip will come to about 40.2 mph. At this speed the trip will be completed in about 7.5 hours (a saving of 1.1 hours), but fuel consumption will be over 44 gallons (a loss to the fuel budget of about five gallons).

After this sample trip, if the driver actually clocks in with an hour saved, you will break even on costs or show a slight gain at best. But if your driver knows he's making better time, he may devote a good part of that time to his coffee break. The result is a real dollar loss.

A tachometer on the vehicle is a good solution—and so, of course, is a governor. But when setting speeds for your runs, you ought not to overlook the figures above. Increased mph should justify the resulting decrease in mpg.

New Lubricant Checks Axle Scoring

In most new commercial vehicles, horsepower and axle loads are following the trend of passenger cars—going up. Result? A need for better lubricants to minimize wear and gear failures.

Socony Mobil expert Leonard Raymond says increased drive-pinion speeds make protection against scoring vital in lubrication for commercial-vehicle axles. A new lube has been developed for this purpose by a group of oil companies which have researched the problem. This is the nomenclature to look for: Multipurpose-Type Gear Lubricant (API Service GL4).

Field tests of the new lubricant have resulted in these reports, according to Raymond:

(1) Service failures due to scoring with factory-fill SAE 140 lubricant were eliminated when the new lubricant was used.

(2) Scoring and other failures with MIL-L-2105 lubricants were eliminated.

(3) Short axle life of logging vehicles using factory-specified lubricant was increased to more than 100,000 miles without trouble.

(4) Lumber trucks using three to four new differential gears a year haven't needed replacements since using the new product.

(5) In general, the new multipurpose lubricant surpasses axle requirements of Specification MIL-L-2105 by a wide margin.

How to Vent Torque-Convertor Sumps

Here's a tip from Detroit Diesel Co. on relieving torque-convertor overflow in its Series 300 unit. Overflow can occur when the unit is shut down suddenly before the vehicle is brought to a stop. Oil may spill or foam out of the dipstick hole of the convertor.

This condition should be relieved by providing adequate venting of the torque-convertor sump. This is how to do it:

With the convertor charging pump removed, drill two 1/4-in. holes 1 1/19 in. deep in the convertor sump. The convertor housing should be thoroughly cleaned after drilling—so no chips that fall into the sump will pass into the convertor when it is put back into service.

Service to Fleet Men Is Expanding

Look for a major truck manufacturer to establish a representative in every U. S. town having a population of 20,000 or over. Planning is now in progress—if approved, the program should be in operation in early '58. At the moment, everything about the deal is top secret.

Factory-installed LP-Gas engines in cab-forward model trucks are now available from International Harvester. Furthermore, factory-installed LP-Gas units are being offered for International Model A-100 pickup, lightest truck in the line. This makes the LP-Gas fuel system available in models ranging from 4200 to 60,000 lb.

Ford expects a three-time boost in the demand for heavy duty and extra heavy duty trucks. An expanded line will be announced January 24.

Pick it up! Feel it! Grasp its solid switch lever. Take it apart! See what we mean by "guts!" Look at the muscle mechanism . . . the heavy duty spring loaded contacts . . . the strong sliding contacts . . . the all bakelite contact plates . . . the thermo plastic wiring. Want to bet that once you look inside you'll insist on the 900 and will never settle for an inferior switch. And with its brawn this switch has brains. It signals the turns . . . flashes all 4 lamps for emergency disability warning . . . permits the rear signal lamps to also act as stop and tail lights . . . and automatically controls the tail light for more effective night time signalling. This is the switch for you.

The SIGNAL-STAT No. 900
"5 In 1" SIGFLARE CONVERSION SWITCH

WHAT "GUTS"!
WHAT BEAUTY!

The Signal-Stat Cyclostat "30"
Class A—Type I Directional Signal
Stop and Tail Lamp

Also in double face and flush type models.

Look at the sleekness! Feast your eyes on the newer than tomorrow styling! See what we mean by beauty! Take a good look and you'll see that the beauty goes deeper than the sparkling triple chrome or handsome enamel finish. You get a powerful shatter resistant Cyclostat lens that emits lightning strong flashes . . . non corrosive brass sockets . . . ceramic disc pigtails. You get more value . . . more safety . . . more eye catching, new truck matching, beauty in these Cyclostat "30" series lamps than in any other lamp in the world!

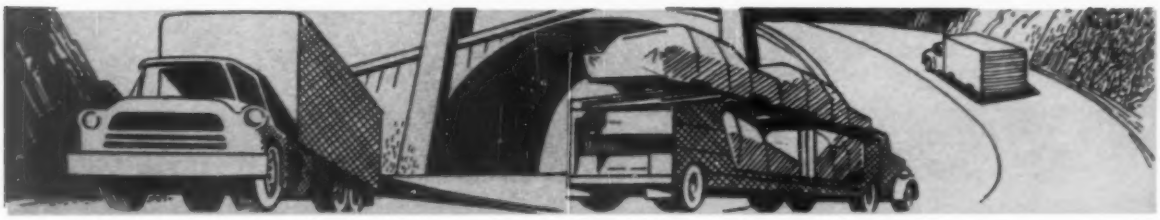
Insist! Demand! Be firm! Unless you get Signal-Stat you're getting short changed!

Signal-Stat

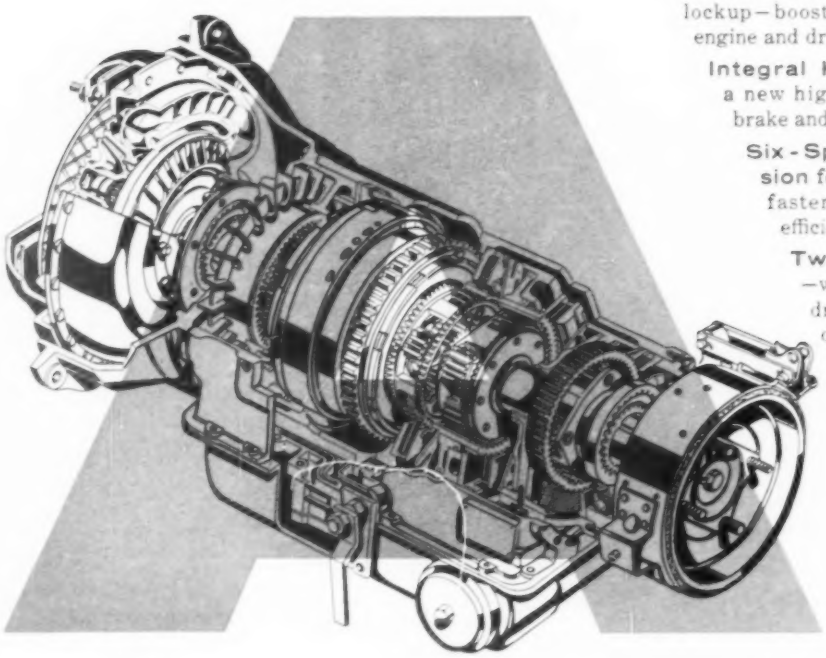
SIGNAL-STAT CORPORATION • 523-539 KENT AVENUE • BROOKLYN 11, NEW YORK

Whether your haul is measured in tons — in gallons — or in yards

the Allison Fully Automatic Truck Transmission



will enable you to haul more payload — faster — safer — and at lower cost than ever before — under every operating condition



Only the Allison *fully automatic* truck transmission gives you *all* these cost-saving features:

Torque Converter featuring direct-drive lockup — boosts operating efficiency — slashes engine and drive-line maintenance.

Integral Hydraulic Retarder — brings a new high in road safety — a new low in brake and tire maintenance.

Six-Speed Automatic Transmission featuring Triple-Drive Range — for faster trip time — increased driver efficiency.

Two Power Take-Off Openings — with exclusive torque converter drive for more power and faster operation of auxiliary equipment.

Allison Automatic Transmissions are currently sold by leading truck manufacturers under various trade names. Find out how an Allison fully automatic truck transmission can repay its modest cost many times over in *your* trucking operation. See your truck dealer or write:

ALLISON DIVISION OF GENERAL MOTORS, Indianapolis 6, Indiana

Allison TORQMATIC® DRIVES

B.F.Goodrich

Traction Express tires give truck operator 101,400 miles plus 3 retreads!

BRUCE JOHNSON TRUCKING CO., INC., operates 70 units out of Charlotte, N.C. The trucks haul general freight in Virginia, North and South Carolina and Georgia. Several years ago the company tried B.F.Goodrich Traction Express tires. President Johnson reports, "They gave us 101,400 original tread miles—the lowest cost-per-mile tire we ever used!" As more trucks are switched to Traction Express tires, the company finds they average 20% more mileage than other tires and can be retreaded 3 times!

No wonder truckers call the Traction Express "the 100,000-mile truck tire." The tread is up to 35% thicker than that of a regular tire. For extra-severe service or for the operator who wants even greater mileage, the Traction Express is available in FLEX-RITE NYLON construction.

B.F.Goodrich FLEX-RITE NYLON has double the impact of ordinary cord materials, resists heat blowouts and flex breaks. The FLEX-RITE NYLON cord body outwears even the extra-thick Traction Express tread, can be retreaded over and over!

Get the truck tire that will give you lowest cost per mile. See your nearby B.F.Goodrich dealer today. *B.F.Goodrich Tire Co., A Division of The B.F.Goodrich Co., Akron 18, Ohio.*

TRACTION EXPRESS tires have slashed maintenance costs and increased mileage 20% for Bruce Johnson Trucking Co.

FOX-SMYTHE TRANSPORTATION CO., Oklahoma City, reports Traction Express tires give over 100,000 miles before retreads.

Specify B.F.Goodrich Tubeless or tube-type tires when ordering new trucks or trailers

B.F.Goodrich
FIRST IN RUBBER

Your B.F.Goodrich dealer is listed under Tires in the Yellow Pages of your phone book

FLEET OWNER Reports on Passenger Car Operation:

New Styles Will Help Resales

AUTOMOBILE MANUFACTURERS have recently become increasingly aware of two important facts: (1) drastic model changes cause serious setbacks in the used-car market; (2) the public wants fuel economy much more than big face-lifting jobs.

The result is that Detroit thinking has changed considerably. You'll see no more drastic changeovers such as appeared in the '55 Chrysler. And you'll see a steadier used-car market. Present car-buying and retiring policies should continue to yield a fair recovery value.

Biggest style change among '58 cars is that of Chevrolet, hardly to be compared with the job done on the '58 Chryslers. And the next big change will probably be in the '59 Plymouth, but it won't be a complete restyling.

Ford, too, has many new features on its '58 models, but most of its $185-million expenditure (about $100-million) went into a new engine and transmission. These are items which traditionally have less effect on buyers than styling does.

Of the car owners interviewed in a survey conducted by National Bonded Cars, a nationwide car warranty company, 70% indicated a preference for less radical style changes from year to year.

Almost an identical percentage of car owners wanted to see more American-made "economy cars." This lends support to the expanded small-car plans of American Motors.

The biggest improvement sought by the public is in gas mileage, according to the survey (obviously the reason behind the recent surge of small-car sales). Look for the small-car trend to have a growing impact on used-car markets and fleet-car recovery value.

Keep an eye on the accessory trend, too. Often the public's acceptance or rejection of accessory items can determine a car's resale value. Here's a roundup of option-accessory trends:

- *Automatic transmissions*: About 80% of all 1957 models had them, as compared with about 74% in 1956 and 63% in 1955.
- *Power steering*: Installations in '57 were made in about 33% of total car output. In '56 it was almost 27% and in '55 only around 21%.
- *V-8 engines*: An estimated 82% of all 1957 model cars had V-8 engines. In 1956 the percentage was about 81, and in 1955 less than 75.

Fleet-Car Price Picture Looks Good

At least one division of the Big Three (a top fleet seller) is thinking seriously of slashing its dealer mark-ups, from about 24% to 15%. Main purpose of the move is, supposedly, to clamp down on big discounts given by some large-volume dealers.

However, a cut in discount alone could raise havoc with many dealers and perhaps put some of them out of business. So, to avoid such a situation, the division proposes to reduce drastically the wholesale price of the car to the dealer. This would allow the dealer to offer customers a lower price than some of his competition but still retain a full 15% mark-up.

The division spokesman declared that, with the present dealer market, most dealers are "giving away 10% or more" of their mark-ups and still have trouble selling '58 models.

For fleet-car buyers, this could mean slightly lower new-car prices. If the new policy is adopted, look for competitors to follow suit. No secret lasts long in Detroit.

Slow Sales May Help Fleet Buyers

Another factor which may spell price advantage for fleet buyers is the purchase volume of 1958 models. At best the market is spotty. One Chrysler official says the public "is playing a little hard to get." Chrysler's production of 1958's for the first week of December is down more than 30% as compared to the same period in 1956. However, part of this drop is due to a two-week strike at the Plymouth engine plant.

The divisions of Ford have slipped a total of 25% for the same comparable periods. GM is about even, but still almost 3% below 1956. Significant is American Motors' increase of 17% over '56—this makes it look as if AMC president, George Romney, is no longer a "voice in the wilderness" in his assertions that he's giving the public what it wants in AMC's small cars.

One auto executive told FLEET OWNER that this "hard to get" trend of the public probably will result in dealers coming through with whopping discounts, after the first of the year.

Despite all this, the auto industry as a whole is still not panicky, and top executives predict final 1957 totals will be about 6.2-million passenger cars sold. As for 1958, they're generally reluctant to make predictions. Consensus among those who will venture a guess: 1958 sales should total about 6.3-million cars.

Car Leasing: Big Year Seen in '58

Increasing fleet use of leased cars has contributed to record purchase orders of '58 models by leasing outfits. Hertz Rent-a-Car, for example, has ordered 19,737 cars mostly in the fleet class, a 50% larger order than last year.

No other truck ever built matches the New Diamond T Diesel 923

1. It is Lower in price—delivers for less than any competitive diesel of comparable size, power and specifications.
2. It is Lower in fuel cost—equals any competitive diesel, saves 2c-3c a mile and more against gas powered vehicles.
3. It is Lower in maintenance cost, per mile and per year—this gets a little technical, but we will be glad to prove it, with chapter and verse.
4. It is Low in weight of standard chassis—and with light-weight options that take out as much as 700 lbs. at small extra cost.
5. It has options of front axle forward for "bridge-formula" states; front axle back for maximum payload in others.
6. It is available also as six-wheeler, with choice of Timken or Eaton tandems in several sizes and types.
7. It has Diamond T excellence of design and manufacture, easier handling, easier riding, easier servicing, longer life.

These statements are not casual claims or vague generalities. They apply to our newest development in the diesel field, with a 672 cubic-inch Cummins engine, dual intake and exhaust valves, counterbalanced crankshaft, aluminum flywheel housing, aluminum gear case cover and oil pan, developing a maximum of 180 horsepower at 2100 r.p.m. For highway tractor service with 60,000 lbs. gross these new Diamond T diesels will cost you less to own and run than anything you have ever owned.

Ask yourself—can it be good business to pay more and get less? See your Diamond T dealer.

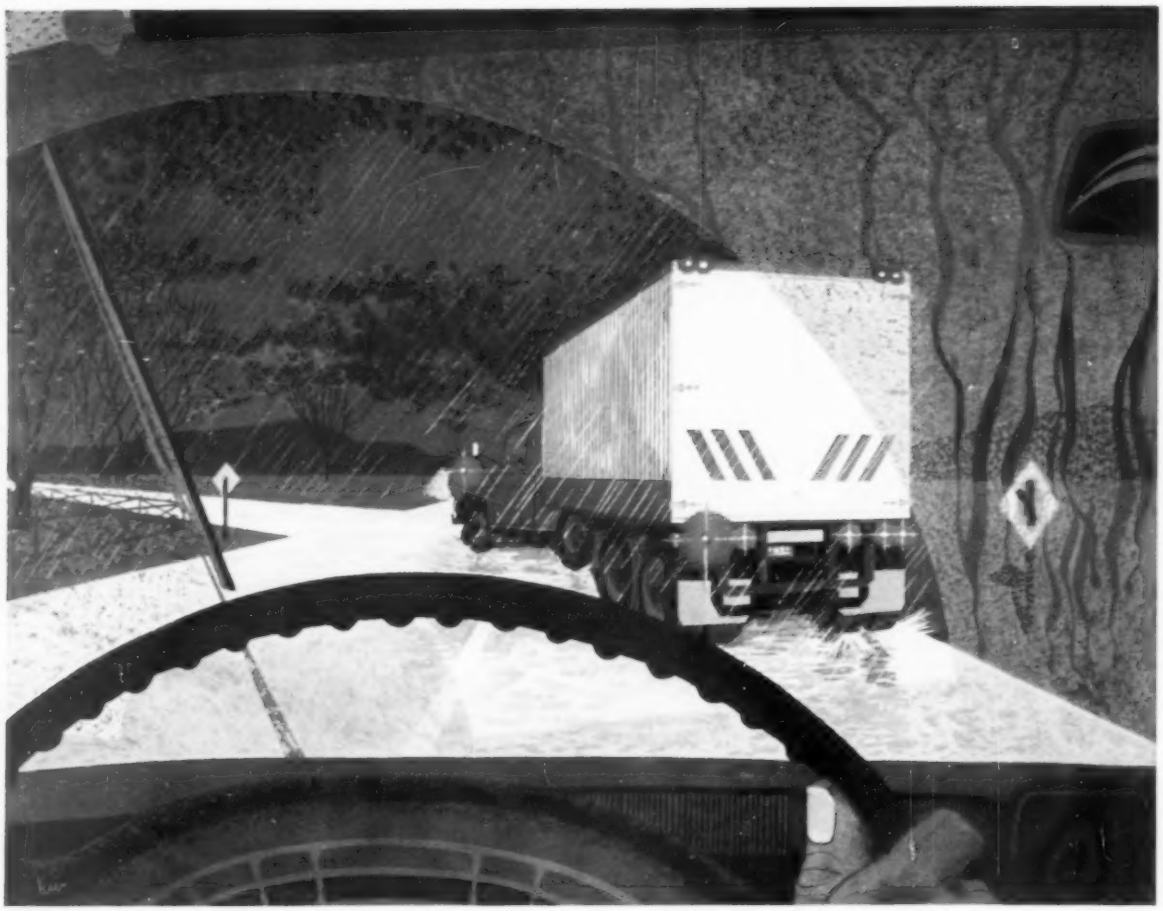
Condensed Specifications Diamond T 923 Series

Front Axle: Timken drop-forged I beam, rated capacity 9,000 lbs. • Engine: New Cummins HF-6 diesel, 180 h.p. @ 2100 r.p.m. • Clutch: 15" dry-plate. Transmission: Fuller 5-speed overdrive, helical gears. • Rear Axle: Eaton 2-speed, providing total of 10 reductions. • Frame: 10-inch side rails, of heat treated alloy steel. • Tandem Axles: Optional, six models. • Other Options: Axles, Aux. transmission, 10-speed transmission, light-weight aluminum elements, etc. • Chassis Weight: Standard 10,700 lbs.; Light-weight 10,000 lbs. Gross Combination Weight Rating: 60,000 lbs. (65,000 lbs. with optional axles).

DIAMOND T TRUCKS

Established 1905

The Diamond is for Quality



Guide's High Visibility Reflectors and Turn Signals mean all-weather safety for your truck fleet!

Turn signal set has four lamps, self-cancelling switch . . . choice of bracket or flush mounting for rear lamps

Most often, trucks can't stop for bad weather. They must be on the road in rain, snow and sleet. It is in such weather, when visibility is low, that the danger of rear-end collisions rises sharply. And there's not much that even your best driver can do to avoid this hazard, if his truck is not clearly visible from the rear. Guide's high-visibility reflectors and turn signals can help prevent needless and costly delays. Because of their dependability and uniformly high quality, Guide reflectors and signals are specified as standard equipment by many leading vehicle manufacturers. Available at United Motors Service outlets and most truck dealers.

GM FORWARD FROM FIFTY

Guide Lamp . . . BRIGHTEST NAME IN LIGHTS

GUIDE LAMP DIVISION • GENERAL MOTORS CORPORATION • ANDERSON, INDIANA

How to keep the lid on battery costs

Follow Goodyear's Fleet Battery Maintenance Plan

Looking for a way to keep battery costs from soaring? Here's a practical down-to-earth answer.

It's Goodyear's free Fleet Battery Maintenance Plan—sent to you with our compliments. And it keeps a constant lookout for the No. 1 battery killer—improper voltage regulation—in the only way it can be done.

At each watering, batteries are load-tested with the Goodyear All-Purpose Tester (above) for state of charge—and the findings are recorded on a Fleet Battery Record Card—one for each battery.

Whenever findings go above or below the green stripe you see on the Record Card, you know voltage is too high or too low and needs prompt adjustment.

By spending less than two minutes a week per battery, you get longer battery life, longer electrical system service—and fewer road delays.

And the savings continue to grow when you use this plan with Goodyear Heavy-Duty Truck and Bus or Diesel-type batteries. Send in the coupon for the whole story today. Goodyear, Battery Dept., Akron 16, Ohio.

GOODYEAR

THE GREATEST NAME IN RUBBER

SEND FOR FREE BOOKLET TODAY!

THE GOODYEAR TIRE & RUBBER COMPANY
Dept. M-7913, Akron 16, Ohio

Please send me a copy of the Goodyear Fleet Battery Maintenance Manual.

Name.....

Firm.....

Street Address.....

City..... Zone..... State.....

Number of trucks in fleet.....

FLEET OWNER reports in brief on:

New Way to Find Fatigue Cracks

LAB WORKERS at the National Bureau of Standards have come up with a neat little trick that may offer fleet owners an inexpensive method of checking on metal fatigue in parts. The problem facing the Bureau workers was to find a simple, handy way to find cracks that were so small special lighting was needed even with a microscope.

The solution was to apply a piece of pressure-sensitive tape to the surface of the metal. When the test part was run, small bubbles formed under the tape. Despite the infinitesimal size of the cracks, the bubbles were large enough to be easily seen with the naked eye.

The Bureau reports that its tests indicate results vary with different types of metals. The method seems to work best with aluminum alloys. Fair results are obtained with cold rolled steel. Stainless steel gives only "very weak" indications and brass and zinc yielded no results.

Question is, does this method have a place in the shop? Quite possibly, with the increased use of aluminum on vehicles. In any case, it certainly bears further investigation.

Truck speed cuts are asked . . .

. . . in a report under consideration by the New Jersey State Coordinating Council on Traffic and Safety. The recommendation is set forth in an interim report by the council's Subcommittee on truck safety. The subcommittee has been making a study "concerning the incidence and degree of responsibility of trucks in accidents."

The determinent of truck speed will be gross weight if the recommendation is approved. In addition to the speed differential, the subcommittee urged that legislation be adopted to:

- Require semi-annual inspections for trucks and increase the number of inspection check-points to insure greater operating efficiency.
- Implement special controls over maximum widths and heights, particularly according to the size of the highways traveled.
- Recommence the issuance of special commercial vehicle operators' licenses.
- Bring New Jersey's law on truck braking requirements into basic conformity with the uniform vehicle code.
- Reinstate the requirement that truckers keep logs of their hours in service.

There's a hauling job available . . .

. . . at EverSweet Corp. for truckers interested in carrying orange juice from Florida to the Midwest. EverSweet is switching a good part of its transportation from railroads to trucks.

EverSweet has been making contact with Midwestern truckers who haul liquid cargoes, such as milk, down to Florida and previously were forced to "dead head" back. Now, these tank trailers can pick up a load of chilled orange juice at the company's Frostproof, Fla., plant and transport it to the plant in Lyons, Ill.

But EverSweet has found itself faced with a problem. It has business available for truckers but is having trouble contacting fleets equipped to haul liquids at controlled temperatures.

More and more shippers are looking to trucks to do their hauling. Rail carloadings continue to decline. To find out what this will mean for your fleet in the next twelve months, see p 55.

Service cuts to pay dividends . . .

. . . won't be tolerated, the Minnesota Railroad and Warehouse Commission has warned Twin City Rapid Transit Co., of Minneapolis.

In a letter to Fred A. Ossanna, Twin City president, Chairman Paul A. Rasmussen said, "it has been apparent to the commission that recently the dividend payments have been too high and that there seems to be a deliberate attempt to pay excessive dividends in order to facilitate the sale of stock."

Rasmussen's letter followed in the wake of announced management changes in the transit company. Company directors had taken the management leadership out of the hands of general manager B. M. Larrick and turned it over to a three-man committee. Mr. Rasmussen said the commission was concerned about these changes.

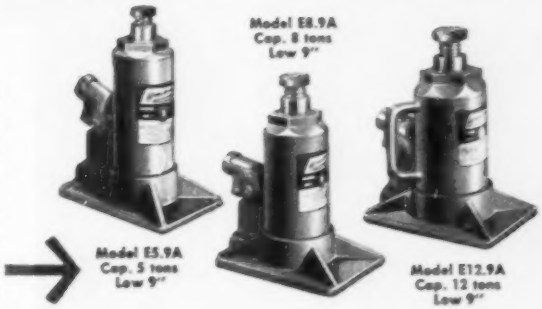
"To leave the management and operation in the hands of three business and professional men appears to be jeopardizing the welfare of this industry," he said. "If there is any intent on the part of the new management to allow your present equipment to deteriorate for a period of time and, as a result, to pay excessive dividends, I can assure you that such action on the part of the management will not be tolerated."

St. Louis is talking terminals . . .

. . . in a big way. Greyhound has announced plans for a $3-million, downtown terminal to be built in the near future. And hot on the heels of Greyhound's decision came a bid from Continental American Trailways for a new installation, quite possibly Greyhound's old terminal remodeled. Trailways has suggested a universal terminal, to be shared by all companies except Greyhound.

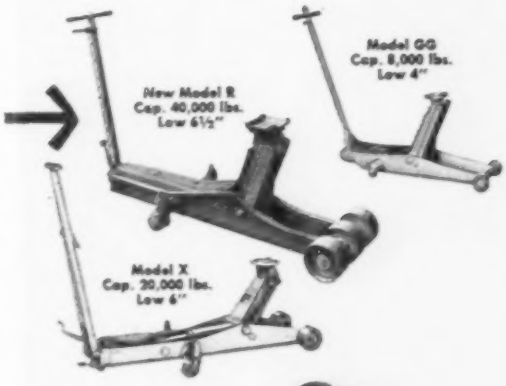
HEIN-WERNER HYDRAULIC JACKS

for fast lifting, easy positioning and safe handling



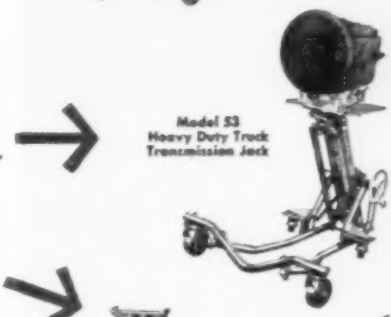
Hein-Werner Hydraulic Truck Jacks

. . . are powerful, dependable and fast acting. Built to withstand severe usage. Operate in vertical or horizontal position. Pressure by-pass prevents over travel of ram. Protected positive release valve prevents accidental lowering. Pumping unit is leak proof. One piece, extension screw is hardened for longer life – greater stability. Available in capacities of 1½, 3, 5, 8, 12, 20, 30, 50 and 100 tons. Models of 12 tons and larger have carrying and positioning handles. All are factory tested at 1½ times rated capacity to assure maximum safety.



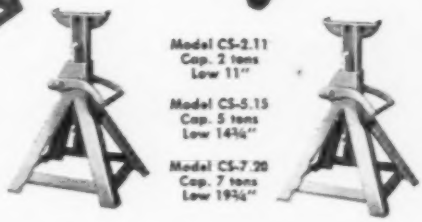
Hein-Werner Hydraulic Service Jacks

. . . are sturdy and packed with power for quick, easy lifting. Large swivel wheels and easy-to-spot white swivel saddle permit fast, sure positioning under load. All side members are of structural steel and hydraulic units are double tested to assure dependable service. Available in models of 1¼, 1½, 2, 4, 10 and 20 tons capacity. Each is individually tested and equipped with safety valve.



New Hein-Werner Truck Transmission Jack

. . . designed for one-man handling of heavy duty transmissions, torque converters, differentials and rear end assemblies. Capacity 2000 pounds.



New Hein-Werner Stout-Boy Stands

. . . offer quicker adjustment – greater safety and stability in three popular capacities . . . 2, 5 and 7 tons.

Keep up to date in '58 with Hein-Werner. Remember, Hein-Werner manufactures and sells more hydraulic jacks than any other company in the world! Be choosy . . . be safe – make sure *all* of your shop jacks are Hein-Werner.

FRANCHISED SERVICE DEPOT

For Your Protection all factory approved service stations now display this emblem.

HEIN-WERNER CORPORATION

WAUKESHA, WISCONSIN

The complete Hein-Werner line includes: The famous "55", "Screwball" and WHIZ Twin Saddle Service Jacks . . . Under Axle Jacks of 1½ to 100 tons capacity . . . "Bumper-Lift" Jacks for passenger cars . . . Service Jacks for shop use . . . Transmission Jacks . . . Adjustable Car Stands . . . "Push and Pull" and "Pushmaster" Jacks for body, fender, and frame repair work.

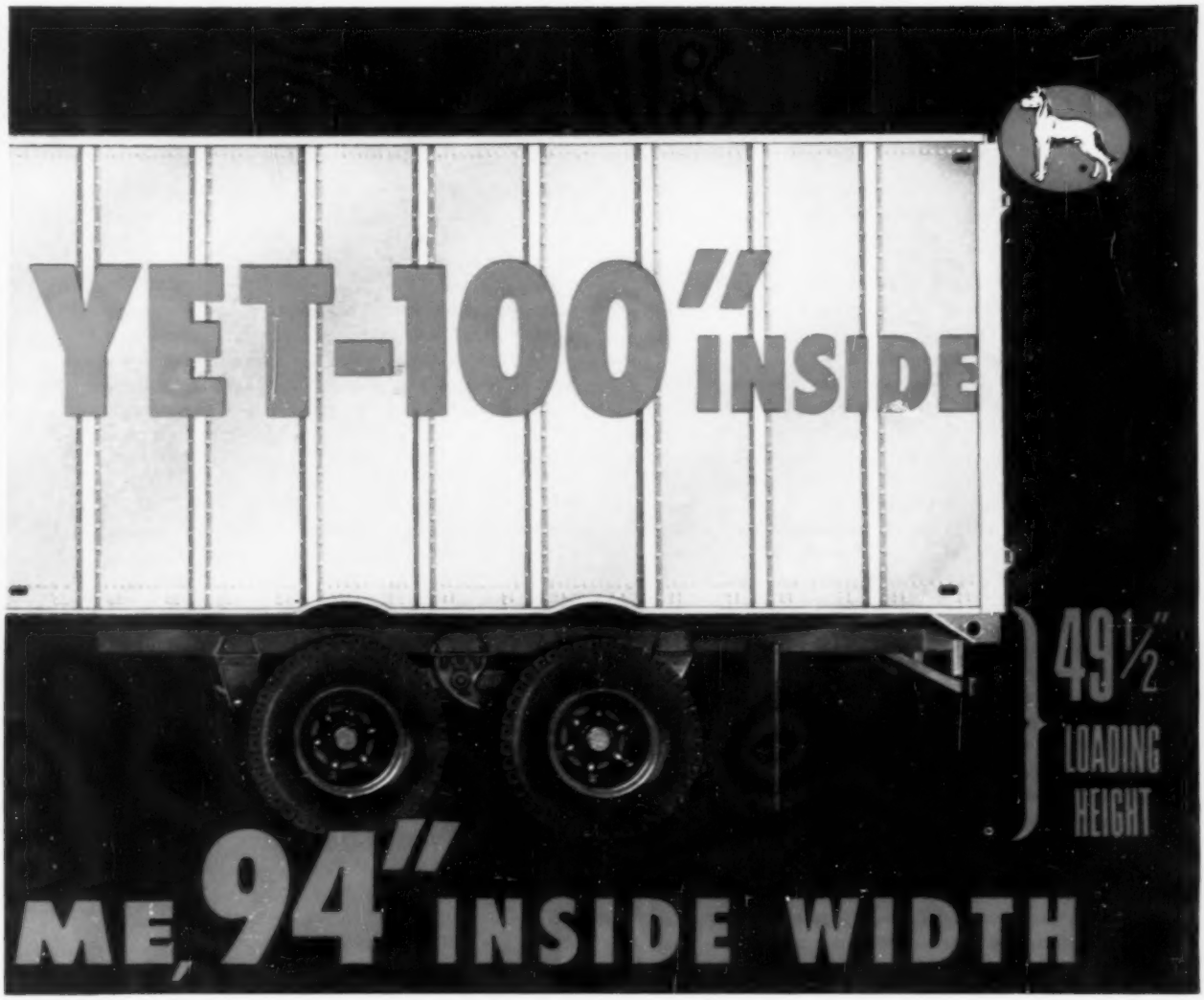
The amazing dimensions of this unit bring to the trucking industry the *largest capacity straight-floor trailer* ever offered. The exceptional strength and quality of all Great Dane Trailers has been retained in this unit, which offers by far the greatest capacity of any other trailer of its kind.

The level floor, with its 2¼″ integral upper 5th wheel, extends the complete length of the unit. A 94″ loading width plus a loading height of 100″ in this straight-floor unit give you more payload capacity than many drop-floor trailers. With a dock loading height of 49½″, this unit loads as easily as stacking cartons in your warehouse.

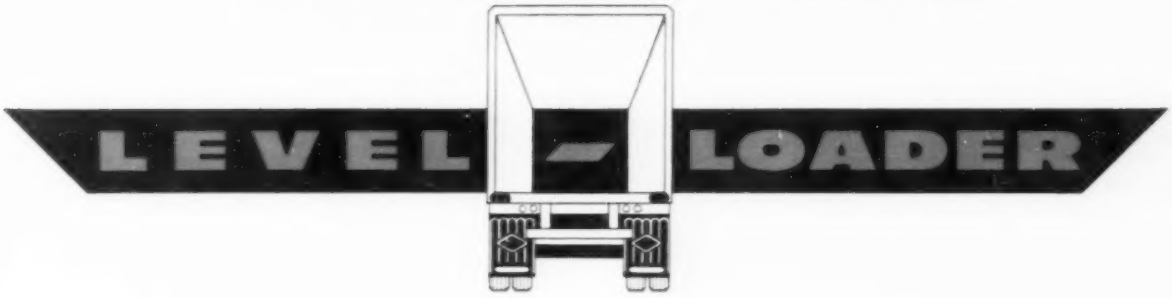
Here is what you get in the new, revolutionary Great Dane

LEVEL LOADER

1. Honeycomb Construction (Pat. App'd. For)
2. Extra Strong 2¼″ Upper 5th Wheel
3. Semi-Insulated Roof
4. Extra Strong Side Sheets
5. Smooth Ceiling—No Roof Bows
6. Added Cargo Protection with Double-Skin Roof
7. Road-famous Great Dane Tandem



The Great Dane



For a descriptive folder and complete specifications write today

GREAT DANE TRAILERS
SAVANNAH, GEORGIA

In the labor field FLEET OWNER reports:

'58 Finds Teamsters Troubled

A STATE OF SUSPENSION is the temporary fate of the International Brotherhood of Teamsters. The expulsion of the trucking union from the AFL-CIO last month answered only one of its problems. And that came about as an anti-climax. Everybody knew it was coming, and it happened almost without a ripple. The real problems linger on for the Teamsters, as do the solutions.

The fate of the Teamsters has been taken out of the union's hands. The last decision it could make was just prior to expulsion—and it chose to go it alone. Now, it's up to others—the courts and Congress. Here, at FLEET OWNER press time, is the Teamster score-card:

- Millionaire Teamster president Dave Beck stands convicted of grand larceny in home-town Seattle. The charge: that he had pocketed $1900 from the sale of a Teamster-owned Cadillac. In April, Beck faces another trial and even more serious charges that he evaded $240-thousand in income taxes for the years 1950-53.
- Heir apparent James R. Hoffa, whose election to the Teamster presidency has been held up in one court, was on trial in two other courts. One case charged him with wiretapping, to hear telephone conversations of his subordinates in Detroit. In another New York court, Hoffa was accused of perjury in denying associations with the alleged professional wiretapper.
- The fourth court test—this one in Washington, D. C.—challenged the legality of the Teamster convention last September which put Hoffa and many of his associates at the helm of the 1.4 million-member union. The challenge, which was made by 13 rank-and-file Teamster members, temporarily barred Hoffa from assuming the office as scheduled for last December 1.

Union war or peace hangs on the outcome of the court trials. Only the fate of Dave Beck, one-time kingpin of the big truckers' union can be discounted as far as the Teamsters and the rest of labor are concerned. Beck still reigns as president, but his power is fast waning. He holds his job under a court freeze and his interpretation of the Teamster constitution—that a convicted man has a right to all legal appeals before any action is taken against him. And, under Beck, Teamster vice-president Sidney Brennan still holds his job despite Supreme Court approval of his conviction for taking a payoff from an employer.

What happens to Hoffa is the key. A conviction in any one of three cases involving his leadership could determine the future of organized labor. If the courts upset the Teamster convention results, and offer another election, the Detroit labor leader could be out. It's unlikely he could again score in an election, particularly if the voting rules are all laid out by the courts and the balloting is closely guarded.

A conviction either on wiretapping or perjury would force Hoffa to re-consider about stepping down from the top office he has never officially held. Under a conviction his re-election chances would be slim. And, a defeat would likely cause his supporters, who have taken the legal and labor onslaught for many months, to give up the ghost.

AFL-CIO is holding its breath over Hoffa. George Meany and his brain-trusters are putting all their apples on a Hoffa court defeat. This was the big reason the expulsion went so smoothly. Meany hopes that the merger will be back intact in a few months, and that Hoffa will be replaced by someone acceptable to the federation high-command. Therefore the split has been made with as little bitterness as possible.

And, it almost didn't come about. Up to the last minute before expulsion, Hoffa intermediaries were approaching Meany on a deal. One firm offer: Hoffa would agree to step down if the AFL-CIO would accept Hoffa-ally, John T. "Sandy" O'Brien as Teamster president. Meany replied: "No bargaining. Hoffa must go." As a matter of fact, Meany would have taken a non-Hoffa Teamster leader and called off the expulsion. Thus, AFL-CIO leadership felt it had Hoffa swaying: that a defeat in the courts would swing him out of office.

The truce will hold until the court tests are over. When the Teamsters departed from the AFL-CIO, it was hardly in anger. For the trucking union, and the AFL-CIO, it was a case of don't-rock-the-boat. Neither side wants the war and both will avoid it as long as they possibly can.

Said Meany, "There is no plan at all for a war with the Teamsters and we hope it will never come." Replied the Teamsters: "We will continue to work with other unions. We will not raid or wreck."

What the AFL-CIO has in mind is making it easy for the Teamsters to return to the fold. Mutual-aid pacts will not be broken up. Teamsters may continue to hold AFL-CIO state and local jobs under other union cards. The time and money put into court suits are keeping the giant union occupied and quiet at this time. The Teamsters want no more trouble. If this means keeping the peace with their former allies who expelled them for corruption, that's an acceptable price—at least until their legal troubles are ended.

"Most important research TTMA has ever undertaken"...

predicts

Mr. A. E. Williams

Vice Pres.—Engineering, Research and Development

FRUEHAUF TRAILER COMPANY

"In the design of refrigerated trucks and trailers one of the basic questions has always been, 'How much insulation—and what type—is required?' In the absence of standard industry methods of measuring heat transfer, each manufacturer has necessarily had to supply his own answer to this important question.

"In July of this year, however, TTMA announced a joint industry-government project to develop an accurate, realistic 'heat value' rating for refrigerated trailers. The object of this research will be to establish a BTU value, (expressed in BTU per hour, per degree temperature differential) that will become the index of heat value for a trailer. The method of establishing this value consists of matching a measured heat gain in the trailer with an equal heat gain in the 'calorimeter'. This laboratory rating will then be checked in a field test under actual operating conditions to develop a dependable correlation between the static rating obtained in a test room and the performance a motor carrier can expect.

"Industry support of this project has been gratifying. In my opinion, this is the most important research TTMA has ever been called upon to undertake, and can only work to the benefit of our industry, our suppliers, and our customers."

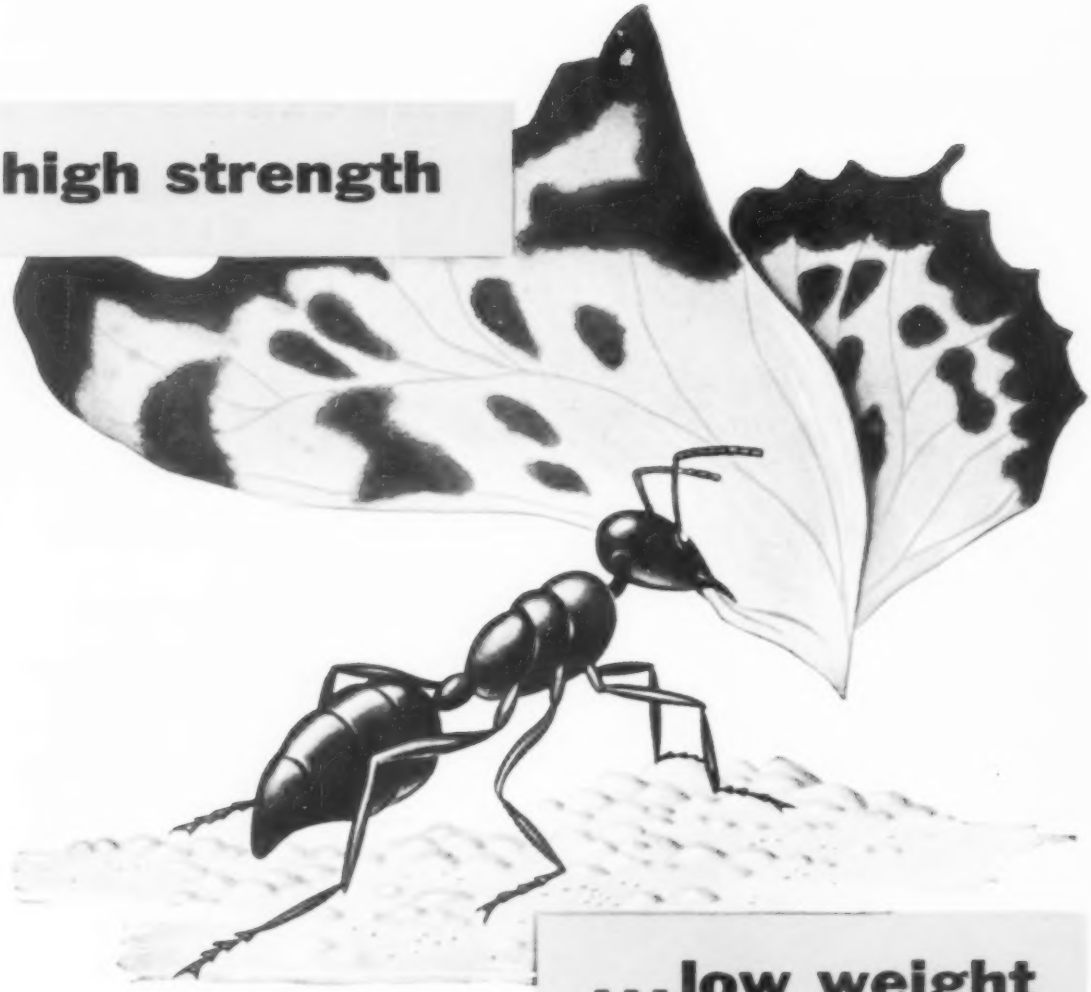
In the years since its introduction in 1945, ULTRALITE (the original lightweight textile glass fiber insulation) has been specified and installed in more truck trailers than any other body insulation—of any type. Such acceptance is no accident. Gustin-Bacon has throughout this period pursued a consistent program of product improvement. Coincidently, it has carried on a realistic research investigation to the end of developing information relating to the most efficacious application techniques. The TTMA sponsored project, described by Mr. Williams, will provide significant new and reliable information developed, not alone from static laboratory testing, but "over-the-road" operational performance as well. Gustin-Bacon heartily endorses this industry effort to illuminate the realities of good insulation practice.

FOR INFORMATION, WRITE FOR LITERATURE

GUSTIN-BACON MANUFACTURING CO.

246 W. 10th St., Kansas City, Mo.

Thermal and acoustical glass fiber insulations. Pipe couplings and fittings. Molded glass fiber pipe insulation



Of all working insects, the ant is stronger per unit of weight. And Parish Pressed Steel Division of Dana Corporation, a leading manufacturer of automotive chassis and frames, uses A. W. Dynalloy steel for the same reason . . . high strength—low weight.

There are other reasons, of course. A. W. Dynalloy is

. . . easy to weld
. . . easy to form
. . . resistant to corrosion

As with Parish Pressed Steel, A. W. Dynalloy can help you get more value per dollar spent for your product. Send for our A. W. Dynalloy booklet which gives complete information. Write Marketing Division, Dept. DY-E92.

A.W.

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Bill Slater, owner of the M. C. Slater Co. of St. Louis, Mo., one of the largest haulers of steel in the Midwest.

ALLSTATE Express Cargo Tires

Roll 200,000 Miles... Ready for More!

In 1955 when the ALLSTATE EXPRESS CARGO tires were introduced, the Slater Co. placed a complete set on the tractor and trailer illustrated. Two years and 200,000 miles later, the same tires are still rolling without a recap!

Bill says: "The Express Cargo is best for mileage and blowout protection. My drivers like them, because they give better road stability and traction." Mr. Trucker call Sears today. Let our tire experts show you the New Way to greater performance . . . greater savings!

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SALES AND SERVICE IN OVER 700 RETAIL STORES

In medicine, FLEET OWNER reports on:

How Medicine Can Improve Safety

ONE OF THE MOST important public health problems in the United States today is motor-vehicle accidents. In addition to the number of injuries and deaths, fleet owners and commercial-vehicle operators have the financial problems associated with motor-vehicle accidents.

Compensation and disability costs increase directly to the number of accidents that occur. Therefore, it is imperative for any efficient organization to maintain a modern accident-prevention program and utilize the experience and medical progress resulting from research.

A look at accident-facts will convince you that this is a major problem: 40,000 accidents due to motor vehicles; 1.4-million injuries; 95,000 deaths, a death every 13 minutes; cost of over $4.5-billion. Vehicle accidents are the leading cause of death in persons between one and 24 years of age; second between 25 and 44; and third from 45 on. Impressive, yes—but can anything be done about it?

Motor-vehicle accident prevention involves the road, the vehicle, and the driver. In addition there are problems of education, training, re-training, and law enforcement. Great efforts have been made to improve roads and in maintaining a mechanically good vehicle. But vehicle-safety design and the driver—the most important factors—have been virtually neglected.

Every motor-vehicle operator should have careful medical supervision, in addition to ICC-required examinations. This is especially true of the professional driver in the transportation industry. Periodic, detailed examinations should be performed to detect and treat any disease that may impair the driver's ability to drive safely. These examinations are similar to periodic checkups recommended by all health agencies for the early detection and treatment of diseases as a means of improving and prolonging life.

There are certain, special areas that require close attention in order to help spot the unsafe driver before he has an accident. Therefore, it is as important for the fleet manager to know these points as for the examining physician.

- General physical history and condition indicate a man's risk.
- Vision and proper hearing are basic necessities for safe driving.
- Certain pathological conditions should prohibit a man from driving since they may cause sudden unconsciousness.
- Certain convulsive disorders (such as epilepsy) should also disqualify drivers.
- The action of alcohol, drugs, fatigue, psychological states, and their relationship to motor-vehicle accidents, must be understood by professional drivers and their superiors.

These areas will be discussed in greater detail in future columns.

What has been done so far is of great importance. The medical profession is being educated on this public health problem.

In 1940, the American Medical Association prepared physical-fitness standards for drivers. These were reviewed in 1945. In 1956, Brandaleone and Friedman published a list of physical standards for motor-vehicle drivers.

A symposium met at New York University in 1956 to study the problem and make recommendations. A large group assembled, composed of physicians, safety experts, highway law-enforcement, judiciary and engineering officials from the entire country. This helped bring widespread attention to the part medicine has to play in motor vehicle safety. A copy of this symposium report is available to fleet men, their safety, medical or personnel directors from New York University, Center for Safety Education, Washington Square, New York City. Attn: Dr. Leon Brody. Price, $.50.

Important national medical associations have established committees whose prime purpose is to prevent motor-vehicle accidents. And they are studying the relationship between various physical conditions and the cause of accidents, and standards for licensing bureaus.

During the next few months, this column will present the standards for the selection of commercial drivers, which have proved successful in reducing accidents and lost time due to illness. As more and more research is performed, these qualifications become increasingly refined and the area they cover grows in size. The profile of the ideal driver will be discussed, giving an idea of where, and how short of the ideal, it is safe to stop. Knowledge of the criteria for drivers is important to management as well as the medical department.

Transportation medicine promises a better future for fleet owners. The first steps toward national realization of this approach to safety have already been taken. The medical profession is fully aware of its responsibility in motor-accident prevention. The responsibility for implementing these safeguards is on commercial transportation, at the management level.

HAROLD BRANDALEONE, M.D.

Fleet Owner Retains Medical Consultant For Special Series

Dr. Harold Brandaleone, FLEET OWNER's new medical consultant, has played a prominent part in research on the medical aspects of transportation, a specialized and important field.

As medical director of the United Parcel Service, a large delivery fleet, he contributes significantly to medical aspects of fleet management. He has evolved driver-selection and qualification standards which have greatly reduced accidents and saved lost time.

In this field, Dr. Brandaleone has been president of the N. Y. State Industrial Medical Society and chairman of the Industrial Medical Association Committee on Standards for Vehicle Drivers. He serves on committees on Motor Fleet Supervisory Training, and on Medical Aspects of Automobile Injuries and Deaths.

Because of its proven value to the fleet industry, transportation medicine—particularly driver selection and safety—will be the subject of a new FLEET OWNER monthly series. Dr. Brandaleone will discuss aspects of the subject of particular interest to bus and truck fleets.

Any suggestions from readers on topics they would like discussed will be welcome.

CAPRICIOUS COMPRESSORS that "Rock and Roll" off base

. . . can be safely and securely held in place by CASTEEL Wheel Blocks

Rugged one-piece steel castings . . . light weight but strong and compact with calks cast-on at rear of base. Inexpensive . . . indestructible. WB17 JET Wheel Block can be used for many types of wheel mounted equipment: pumps, drills; stake and panel trucks; small aircraft; passenger vehicles, etc.

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WHEEL BLOCK WB-17

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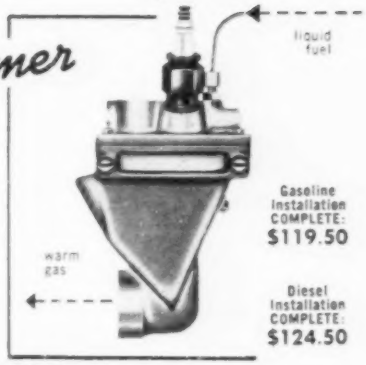
REICHHELM

GASIFIER *primer*



Installed permanently as an auxiliary carburetor, the GASIFIER primer is a self-heat-generating unit which vaporizes liquid fuel*, blends it with air to form a combustible mixture, and distributes mixture evenly to cylinders.

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48 inches short... for bigger payloads in 48 states!

NEW INTERNATIONAL Sightliner gives 10% more payload capacity with shortest tilt-cab of all! And your driver gets "three-windshield" visibility!

Far-sighted fleet operators have been talking about the need for a completely different unit to answer today's hauling requirements – and tomorrow's.

Here it is – the new INTERNATIONAL Sightliner! Measures only 48 inches from the front bumper to the back of the pushbutton-operated tilt cab. Hauls up to 224 cubic feet more legal payload than any other truck in its weight class . . . city to city or coast to coast. And in addition to greater gross and cube, it offers greater efficiency with longest trailers, combinations, dromedary units.

Short 28-inch bumper-to-front-axle dimension gives you maximum gross payloads in any state and under bridge formula restrictions. For bigger payloads and bigger profits, take a good look at the INTERNATIONAL Sightliner.

INTERNATIONAL Sightliner tilt-cab tractor. GCW 50,000 to 65,000 pounds.

Fleet cost records prove

INTERNATIONAL TRUCKS

48″ short!

Cab tilts at the push of a button in 15 seconds or less. Greater accessibility for easier, faster servicing.

48-inch Sightliner cab allows 39 feet of trailer load in 45-foot states . . . even longer loads where state laws permit. V-8 engines up to 549 cu. in., with *true truck torque.*

High over-traffic vision. Two lower windshields for safer, easier city driving. 1,708 sq. in. of forward vision!

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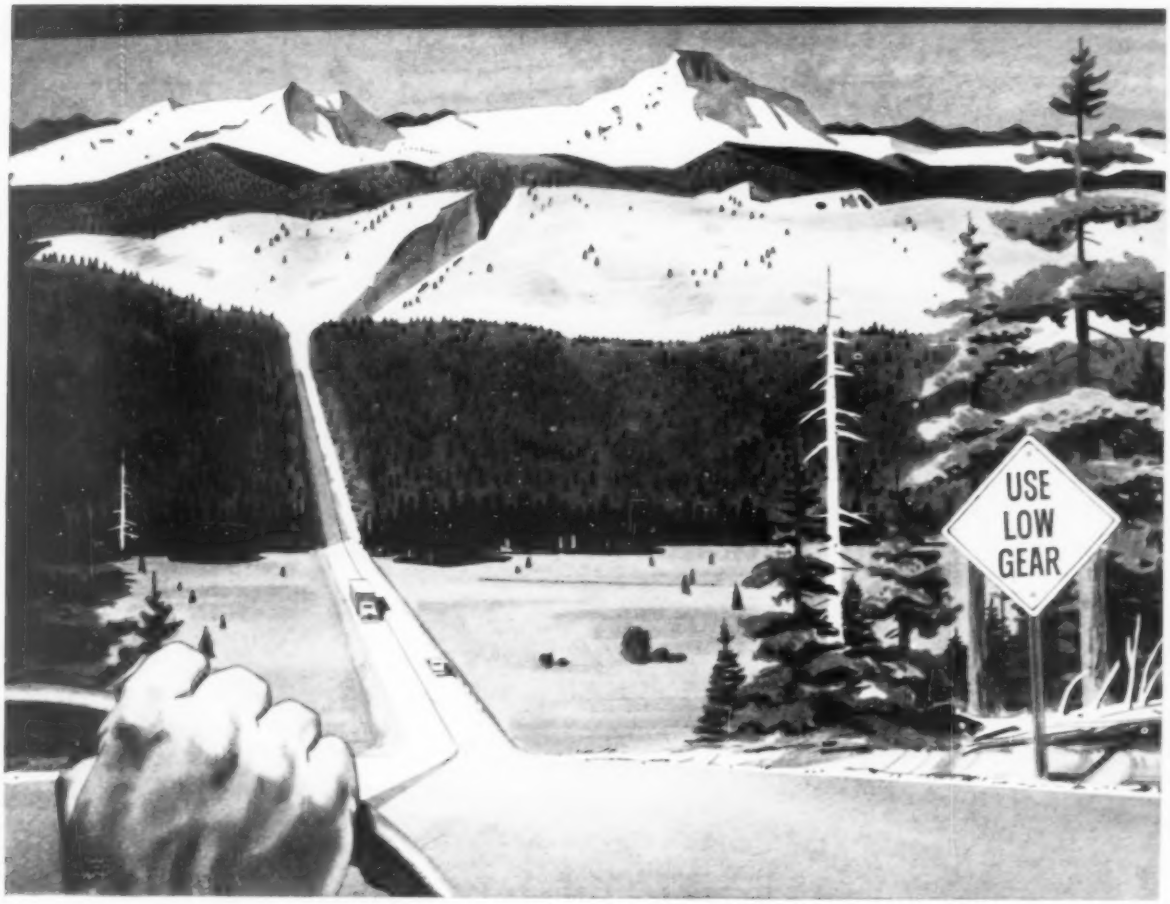

"7,800 ft. up, rollin' 20 tons, due in an hour... these brakes are gonna take a beating!"

Good thing this rig stops on American Brakeblok. She'll deliver the payload on time—and safely!

Two-fisted American Brakeblok linings and blocks lick devil heat anywhere, shrug off glaze and fade . . . because they *maintain an unyielding, peak friction value*—right down to the bolt tops.

No friction "wear-off", these blocks are solid and noncompressible—not woven, laminated or impregnated.

For carriers, buses or highly specialized rigs . . . a recent survey shows 17% *more* operators use American Brakeblok than the next leading make.

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heavy-duty lining and thick blocks

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NAPA

300% MORE RESISTANCE TO OVERCHARGE*
GREATER RESISTANCE TO UNDERCHARGE*

THE 2 PRIME CAUSES OF BATTERY FAILURE

WITH NEW

National

Silver Cobalt SEALED CHARGE

TRUCK — BUS — DIESEL BATTERIES

WITH THE

SILVER LINING

Rugged heavy-duty batteries built for severe service—transcontinental runs or start-and-stop city work. Look at these features:

- *thicker plates, heavier plates—for faster surer starting in any weather*
- *tougher hard-rubber containers—resist acid, heat, cracking*
- *double glass-plus-rubber insulation—prevent plate-oxide shedding*
- *element protectors—reduce damage from careless servicing*
- *National Deepwells—like a camel this National battery goes months without water*

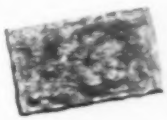
See how these new National silver cobalt batteries can save you money — see your National dealer or write

GOULD-NATIONAL BATTERIES, INC.
SAINT PAUL 1, MINNESOTA

*Overcharge and undercharge are the two worst battery killers, accounting for 4/5ths of all battery failures! New National batteries withstand these killers better—have triple resistance to overcharging, greater resistance to undercharging, compared to SAE minimums.

HERE'S THE STORY OF THE SILVER LINING

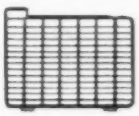
Corrosion eats away battery grid material just like rust eats away bare steel. Coated steel lasts indefinitely because it doesn't rust. Similarly silver cobalt coats the battery grids, protecting them from corrosion. The grids last longer—the battery performs better.



Bare unprotected steel rusts

Coated steel resists rust

Unprotected battery grids corrode



Silver cobalt grids resist corrosion

At Oklahoma City—

When Hertz trucks go out Cities Service is in!

Every time one of the 300 trucks of Oklahoma City's Hertz operation leaves the garage, Cities Service is in! . . . in the gas tank . . . in the crankcase.

For 15 years, Hertz, in a number of communities including Oklahoma City, has relied on Cities Service products for top maintenance of its U-Drive-It fleet . . . and today uses Cities Service Milemaster Gasolene and C-300 Motor Oil.

Result: Many of Hertz' gasolene units are getting over 100,000 miles before overhaul—despite the fact that any truck may have dozens of different drivers in this time.

Combined with excellent and thorough maintenance in the Hertz shop, this record with Cities Service gasolene and C-300 Motor Oil is one of the important reasons why Hertz can make truck rental outstandingly economic for its customers.

Likewise, it is good evidence that Cities Service products can make your fleet operation more economic, too. Get all the facts from a Cities Service Lubrication Engineer, or write: Cities Service Oil Company, Sixty Wall Tower, New York 5, N. Y.

Where Good Mileage Begins. Cities Service Gasolene has been giving Hertz trucks top mileage for years. Mighty important when you consider Hertz supplies its customers gasolene.

Hertz Takes the Maintenance Headache that their customers would ordinarily have if they owned their own fleet. Trucks are kept in peak operating condition.

CITIES SERVICE

QUALITY PETROLEUM PRODUCTS

Dorsey uses Rubatex— the best insulation money can buy

RUBATEX cargo-protecting flooring insulation will prove that under the most extreme conditions your refrigerated trailer will hold constant desired temperature—will hold cost and weight down—will increase inside space and payload capacity. Proof enough that RUBATEX INSULATION HARDBOARD is the best flooring insulation money can buy?

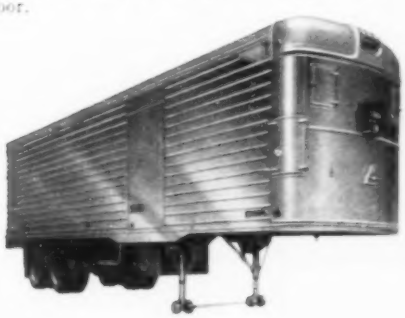
Rubatex Insulation Hardboard is easy to install—less labor cost in elimination of furring strips because Rubatex has enough structural strength to support extruded aluminum floor.

"RUBATEX IS STANDARD FLOOR INSULATION on our new REEFERATOR . . . gives us MAXIMUM INSULATION in bottom plus MORE CUBIC CARGO SPACE . . . its load-supporting, zero moisture pick-up properties ELIMINATE CONSIDERABLE WEIGHT IN FLOOR AND SUB-FLOOR CONSTRUCTION."

Dorsey Trailers, Inc.

You get peak performance with Rubatex—here's why:

- Lowest heat conductivity of any known structural material (K factor 0.21)
- Compressive strength (60 p. s. i.) strong enough to support floor alone
- Extremely light in weight ($4\frac{1}{2}$ p. c. f.)



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GREAT AMERICAN INDUSTRIES, INC.
RUBATEX DIVISION, Dept. FO-2
Bedford, Virginia

For full details and sample of Rubatex Insulation Hardboard—print your name in space below, attach to your company letterhead and mail to us.

Name _____

Send for Free Samples and Data Sheets

the danger and expense of exploding brake drums

USE *Exclusive* MOTOR WHEEL Centrifuse Brake Drums

The over 100 million Centrifuse Drums that have been in service are ample proof that the Centrifuse Drum is *explosion-free!* The steel containing ring will not allow the heat checks in the inner iron braking surface to break through.

Centrifuse Drums are not cast — they are made by fusing molten iron into a high grade steel stamping by means of centrifugal force.

This unique Centrifuse manufacturing process provides a drum that's better in every way — cooler, lighter and better balanced as well as explosion free.

Write for free Brochure on Centrifuse Drums.

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NEW MEXICO
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Omaha Rim & Wheel Co., Omaha
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Frey, The Wheelman Inc., Buffalo
Frey, The Wheelman Inc., Rochester

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Carolina Rim & Wheel Co., Raleigh

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Southwest Wheel Inc., Oklahoma City

OREGON
Auto Wheel Service, Portland

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Standard Wheel & Rim Company, Harrisburg
Kay Wheel Sales Co., Philadelphia
Wheel & Rim Sales Co., Pittsburgh
Standard Wheel & Rim Co, Lancaster

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Beller Wheel, Brake & Supply Co., Nashville

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Southwest Wheel Inc., Dallas
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Southwest Wheel Inc., San Antonio
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UTAH
Henderson Rim & Wheel Service, Salt Lake City

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Dixie Wheel Co., Inc., Richmond

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WISCONSIN
Wisconsin Wheel & Rim, Inc., Milwaukee

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Alberta Wheel Distributors, Ltd., Edmonton
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Auto Wheels & Supplies, Ltd., Montreal
Wheels & Equipment, Ltd., Vancouver
Wheel & Rim Company of Canada, Toronto
Mutual Supplies, Ltd., Calgary
Brakes & Wheels, Ltd., Regina

LETTERS TO THE EDITOR

Tailpipe Remover

Dear Sir:

Where can we purchase a special tool for removing old tailpipes and mufflers from cars and trucks?

A. M. LEACH

BRADENTON, FLA.

■ **We asume you have been bothered with pipes freezing in place, and the only tool we know of that will help you is a chisel-shaped tool called a muffler-chisel. It can be purchased in any outlet that carries a complete line of chisels. If you are unable to buy one, any common cape chisel will do the job.**

Lost and Found

Dear Sirs:

We are trying to find the location of the Venturi Trailer Company, which is supposedly in a town (name unknown) about 40 miles north of Indianapolis, Indiana. There is no Venturi, Ind., and the company is not listed in industrial directories we have. Would you by chance have any information on such a company?

DUDLEY F. STARR

DIVCO-WAYNE CORP.
RICHMOND, IND.

■ **We have on record this company:**
Ventoura Corporation
704 South 22nd Avenue
Elwood, Indiana
This is as close as we can come to the Venturi Trailer Company but since both names are unusual, the chances are fairly good that it is the company you are looking for.

Misplaced Body

Dear Sir:

Thanks so much for the article that appeared on Page 158 of the November FLEET OWNER in the Automotive Showcase. You will no doubt be interested in knowing the captions were scrambled. Thus the description of our body appeared below the van

Continued on page 41

E. W. Sandygren, President of Inland Petroleum Transportation, says: "In our business, time is of the essence. Customers such as airports, processing plants and ship-loading stations can't *wait* for deliveries. Hot cargoes must be delivered without excessive temperature loss. All this calls for motive power which is dependable and has a high degree of availability."

"Time is

so Inland Petroleum

Inland Petroleum Transportation Company, of Seattle, Washington, operates a fleet of 43 highway vehicles, providing highly efficient motor-truck transportation for a wide variety of products in Washington, Oregon, Idaho and the Canadian Province of British Columbia.

All 43 of Inland's hauling units (32 full trucks pulling trailers and 11 truck-tractors pulling semi's) are powered with General Motors "6-71" Diesels.

Carl R. Seaberg, Maintenance Superintendent of IPT, gives his reasons for Inland's power choice:

"I have always liked GM Diesels. Other Diesels seem 'logy' in comparison. In addition, engine parts are highly interchangeable and are not heavy. Our mechanics can handle them with ease. Maintenance costs for GM Diesels are definitely lower than for competing engines. *Our oldest GM engine, purchased in 1939, is still going strong.*"

2,000,000-mile service!

Round trips for the IPT trucks vary from 300 to 1,100 miles—largely through mountainous terrain. Since 1939 one GM Diesel-powered unit has rolled up nearly 2,000,000 miles; another 1,904,000 miles since 1940; another 1,500,000 miles since 1941 and two others over 1,600,000 since 1942.

Total maintenance cost—4½¢ per mile

Intervals between overhauls are approximately 225,000 miles in tough mountain service. The well-equipped IPT shop uses "unit replacements" to help

One of Inland's truck-and-trailer combinations pauses beside the latest in jet airliners—the Boeing 707 Jet Transport at the Boeing plant in Seattle. The engine in this truck has a total of 1,900,000 miles since Inland purchased it from Detroit Diesel and 225,000 miles since its last major overhaul.

"of the essence"...

standardizes on "Jimmy" Diesels!

assure high availability of vital equipment. Only 4½¢ per mile is required for total maintenance of truck, engine, trailer and tank.

"Jimmy" Diesels available for any make truck

Latest version of the time-proved GM 2-cycle Diesel, the new "71E" engines with 4-valve heads, new "fire-ring" pistons and new injectors are producing the best mileage in Detroit Diesel history—and they're available for any make truck 26,000 GVW and up. The "6-71E" delivers 210 h.p. at an easy-stroking 2,100 r.p.m.; the "4-71E," 140 h.p.*

See your GM Diesel distributor about repowering your present equipment. When you're in the market for new trucks, ask for this great new GM "71E" Diesel. And if the truck you choose isn't immediately available with a "Jimmy," turn your truck over to the GM Diesel distributor for a "71E" installation.

*New GM *Turbopower* Diesels deliver even higher power with little increase in size or weight: "6-71T," 236 h.p.; "4-71T," 171 h.p.

Now—more than ever—*it pays to standardize on GM Diesels*—available in 1485 applications of power equipment built by more than 175 manufacturers. Parts and Service *Worldwide*.

GM GENERAL MOTORS
DETROIT DIESEL POWER

DETROIT DIESEL ENGINE DIVISION OF GENERAL MOTORS, DETROIT 28, MICHIGAN

Regional Offices: New York, Atlanta, Detroit, Chicago, Dallas, San Francisco. In Canada: GENERAL MOTORS DIESEL LIMITED, London, Ont.

New York logger cuts tire costs 50% with Cooper Traction-Treads, gets more recaps

Slawson Lumber Co., Hunt, New York, was ready to give up the idea that any tire could deliver economical service on a logging operation as tough as theirs. The tires they wanted had to produce a powerful traction bite at logging sites and still give highest mileage on the road. The answer to this double-trouble problem still seemed impossible, after trying brand after brand.

Cooper Traction-Treads answer double-trouble problem

A Cooper dealer recommended using the combination of Nylon Traction-Treads for drive wheels and Road-Masters for free rolling wheels. From the beginning, this Cooper combination looked like the right answer to Slawson Lumber's double-trouble problem. Now, after months of the kind of off-and-on-the-road service that made other tires fail fast, Slawson reports a 50% saving on the cost of rubber. And every Cooper tire has been recappable after delivering its original money-saving performance.

America's most versatile tire

Cooper Traction-Treads cut costs whether used as highway tires or in combination off-and-on-the-road service. The extra deep and smoother-running tread, deeper by far than other tires that sell at a higher premium price, delivers phenomenal mileage for truckers who require extra traction to move heavy payloads over hilly country or in slippery and risky weather.

See how much you can save

A visit with your Cooper dealer will save you money because of the consistently lower prices he offers and the extra mileage you get from Cooper truck tires. Or write us direct for complete information, if you prefer. Cooper Traction-Tread and Road-Master tires are available in rayon and nylon types and feature Shock-Guard construction — the new development that guarantees a practically damage-proof tire body. Cooper Tire & Rubber Company, Findlay, Ohio.

Alfred M. Slawson (left) Pres. of Slawson Lumber Co. and Al Lorenz, partner of Cooper dealer A. R. Christiano, Leicester, New York, put "the gauge" on a Cooper Traction-Tread.

Cooper TIRES

Cooper Tires

. . . miles ahead

LETTERS TO THE EDITOR

Continued from page 37

body at the top of the page and the description of the van body appeared below ours at the bottom. Possibly you will want to re-run this to avoid confusion.

J. Y. HEWITT
ANDREWS INDUSTRIES, INC.
ST. LOUIS, MO.

PM Forms

Dear Sir:

I have, very effectively, been able to practice many fine ideas illustrated in FLEET OWNER, for which I am grateful.

In 3 years Baker Rendering Company has grown 100%, but to date I have been unable to get a PM plan initiated. This, in my opinion, is due to lack of personnel and equipment. However, having never been in a position to start a PM plan before, I am not familiar with all the forms and checks necessary. If you have literature on a good PM plan, or if you know of someone who has, would you be so kind as to send me the information.

Our fleet consists of 45 two-ton Chevrolet route trucks, 13 tractors (R.D. 450 & 501 International LPG), 13 trailers, tankers, and flat racks, 7 pick-ups, and 5 cars.

RAY E. SMITH
BAKER RENDERING COMPANY
LOS ANGELES 23, CALIF.

■ **We are sending Mr. Smith a copy of our 16-page story on PM forms. While this is not specifically a detailed explanation of how to set up a PM program, it is the basis for any PM program. In other words, by looking through these forms and reading the report carefully he can decide for his own fleet what type of PM program he should have.**

Micro-Siping

Dear Sir:

I was very much interested in your article on "Micro-Siping" of tires in the August issue of FLEET OWNER. I would like to get the name and address of the manufacturer who man-

Continued on page 45

War Transport Agency Created

The Federal Government is setting up an emergency transportation agency for the control of intercity transport in the event of war. Gordon Gray, defense mobilization director, announced the move to a convention of the National Defense Transportation Association.

Object of the new agency is to restore national transportation to a workable basis in the wake of a nuclear attack. Federal emergency planning, according to Mr. Gray, has been revised during the past year to give further consideration to the possibility of the effects of thermonuclear weapons, radioactive fall-out and missiles. Prime job of the agency would be to mobilize existing facilities. Gray said that it was not the mission of the group to interfere with private enterprise.

Plus

MORE JOBS HANDLED BETTER BY BARTLETT

All Railroad Piggy Back Loading Time Reduced

House Moving—5th Wheel lifts house up and helps to roll on new foundation

Fishy Back operations could not manipulate economically without this help.

Dumping Oranges from Groves into Washing Pits—materially cuts costs

Lift Boom Mounted on 5th Wheel can Boom or Lift any ordinary Tractor and tow in

SIMPLICITY IN MOUNTING

Can Be Done in Any Good Truck Shop

Unit complete with P.T.O., Pump, Shaft-Valves. With special Heavy Duty 5th Wheel.

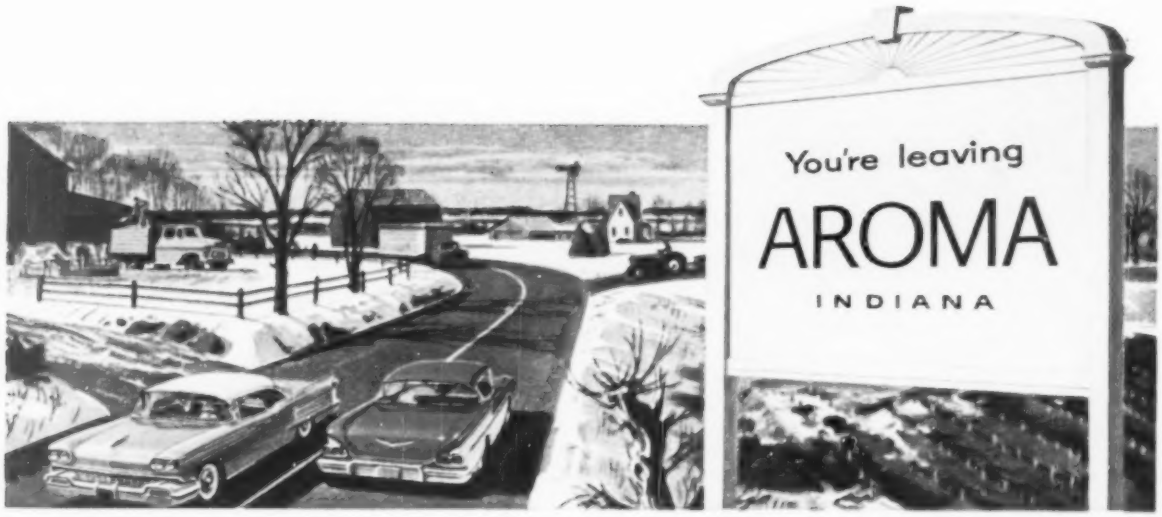
Load is not carried on cylinders but rolls in track cuts line pressure and ring replacements

OUTLIVES ANY OTHER 2 TO 1

BARTLETT HYDRAULIC 5TH WHEEL

Shipped Assembled Ready to Mount

Bartlett
TRAILER CORPORATION
3080 ARCHER AVE. CHICAGO 8 • CORNER OF ASHLAND VIRGINIA 7-1160



FROM **Aroma to Coffee**

640 MILES—31¢

For less than 1/20th of a cent a mile, a new AC Oil Filter keeps oil clean, protects your engine!

It's a fact . . . in the next 12 months, if you're an average trucker, you'll drive your vehicle well over 15 times the distance from Aroma to Coffee—at least 10,000 miles! The engine of your truck will have to endure all driving extremes from hot to cold . . . crawling to cruising to climbing. All of these conditions can affect its performance and efficiency.

The engine is the most vital unit of your truck! An AC Oil Filter cleans all of the oil in the engine every 30 seconds at normal speeds . . . protects the precision parts from possible damage by dirt, dust, grit and bits of metal as small as 1/100,000th of an inch.

The next time you change the oil in your engine—change to a new AC Oil Filter, too. Your nearby AC Dealer will tell you how little it costs.

Watch Walt Disney Studios' ZORRO every week on ABC-TV

CHANGE OIL AND FILTER, TOO!

AC THE ELECTRONICS DIVISION OF GENERAL MOTORS

DRY TRANSIT—Leaf tobacco required the utmost protection and care to safeguard it against spoilage during transportation. Especially damaging to tobacco is moisture. For this reason, the Winston Leaf Tobacco & Storage Co., Inc. of North Carolina utilize this special truck cover for transporting baskets of perishable leaf tobacco from the local warehouse floors. The side curtains are meticulously tailored and so arranged that they can be rolled up or opened individually as conditions may require. Possibility of exposure is virtually eliminated by means of these unique covers manufactured by Dize Tent and Awning Company from Mount Vernon Duck.

This is another example of how fabrics made by Mount Vernon Mills, Inc. and the industries they serve, are serving America. Mount Vernon engineers and its laboratory facilities are available to help you in the development of any new fabric or in the application of those already available.

UNIFORMITY Makes The Big Difference In Industrial Fabrics

Mount Vernon Mills, inc.

A LEADER IN INDUSTRIAL TEXTILES

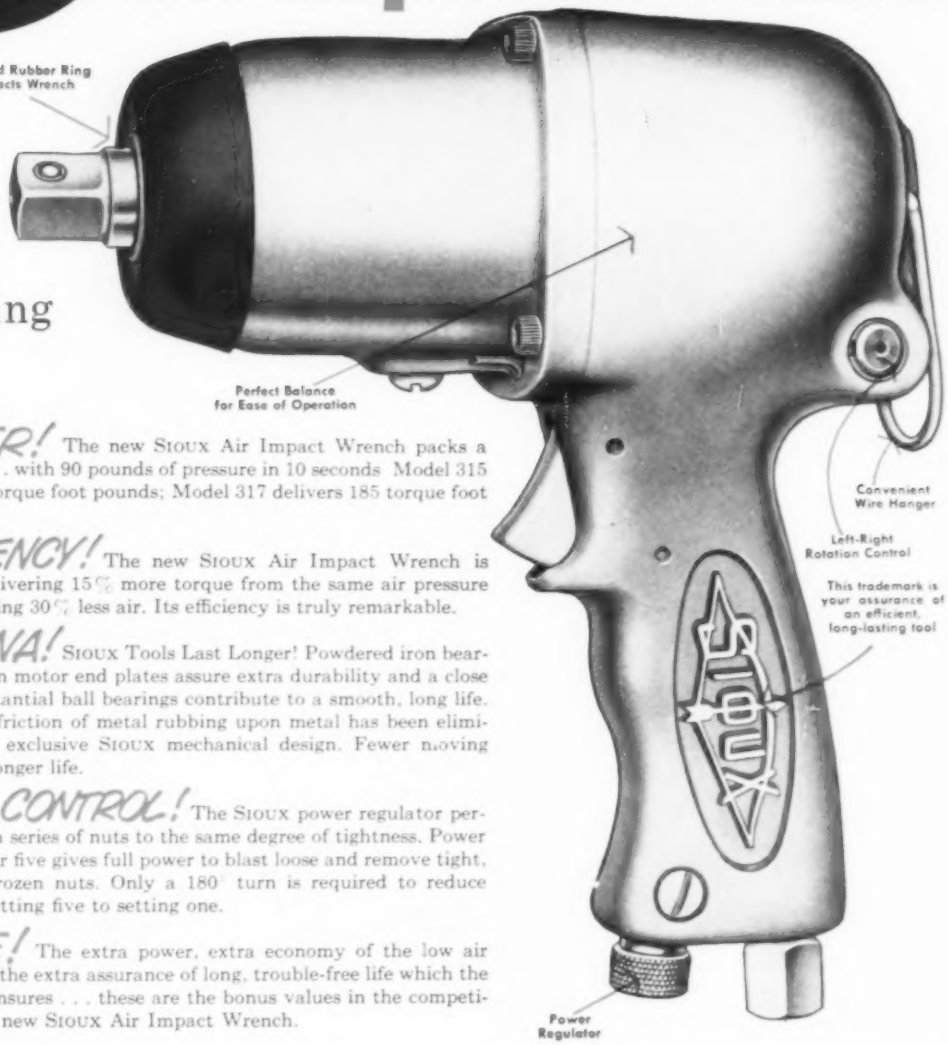
TURNER HALSEY COMPANY
Selling Agents

Main Office and Foreign Division: 40 Worth Street, New York, N. Y.
Branch Offices: Chicago • Atlanta • Baltimore • Boston • Los Angeles

Announcing the new

SIOUX air impact wrench

A name that means something



IN POWER! The new SIOUX Air Impact Wrench packs a real punch! . . . with 90 pounds of pressure in 10 seconds Model 315 delivers 130 torque foot pounds; Model 317 delivers 185 torque foot pounds!

IN EFFICIENCY! The new SIOUX Air Impact Wrench is capable of delivering 15% more torque from the same air pressure while consuming 30% less air. Its efficiency is truly remarkable.

IN STAMINA! SIOUX Tools Last Longer! Powdered iron bearing surfaces on motor end plates assure extra durability and a close air seal. Substantial ball bearings contribute to a smooth, long life. Much of the friction of metal rubbing upon metal has been eliminated in this exclusive SIOUX mechanical design. Fewer moving parts assure longer life.

IN TORQUE CONTROL! The SIOUX power regulator permits running a series of nuts to the same degree of tightness. Power setting number five gives full power to blast loose and remove tight, rusted, and frozen nuts. Only a 180° turn is required to reduce power from setting five to setting one.

IN VALUE! The extra power, extra economy of the low air consumption, the extra assurance of long, trouble-free life which the SIOUX name insures . . . these are the bonus values in the competitively priced, new SIOUX Air Impact Wrench.

REDUCES NUT RUNNING TIME BY ⅔ ON RADIATORS, MUFFLERS, WHEELS, HEAD BOLTS, SPRINGS, TRANSMISSIONS, REAR ENDS, ETC. INCREASES BILLABLE LABOR, PARTS AND MECHANICS' CHECKS.

ALBERTSON & CO., INC.
SIOUX CITY, IOWA • U.S.A.

ELECTRIC DRILLS • SANDERS • IMPACT WRENCHES • POLISHERS • PORTABLE SAWS • SCREW DRIVERS • FLEXIBLE SHAFTS • ABRASIVE DISCS • AIR IMPACT WRENCHES

SPECIFICATIONS

Wrench Number	315	317
Cap. Bolt Size	⅝"	11/16"
Torque foot pounds at 120 pounds air pressure in 10 seconds	195	235
Length	7⅛	7⅛
Side to Center	1 7/16	1 7/16
Socket Drive	½ Sq.	⅝ Sq.
Average air consumption	3½ Cu. Ft.	3½ Cu. Ft.
Net Weight (tool only)	5½ lbs.	5½ lbs.

LETTERS TO THE EDITOR

Continued from page 41

ufactures this type of equipment.

FRANK R. SHEFF

FORT AMADOR
CANAL ZONE

■ **The name and address:**
Micro-Machinery Products Company
808 Main Street
Winchester, Massachusetts

Air-Conditioning

Dear Sir:

I have just finished reading an article on air conditioning for cars in FLEET OWNER.

I am interested in the matter and have been trying to get a lead on the manufacturers of the independent type. Please advise if you have a list of manufacturers that you could send to me.

I would appreciate it greatly.

EDWARD A. HARBART

DIAMOND ALKALI COMPANY
CLEVELAND 14, OHIO

■ **Here is a list of some of the manufacturers of air conditioners for fleet cars:**

ARA Manufacturing Company
1041 Foch
Fort Worth, Texas

Eaton Manufacturing Company
739 East 140th Street
Cleveland, Ohio

Frigikar Corporation
1602 Cochran
Dallas, Texas

Keco Industries
2832 Spring Grove
Cincinnati 25, Ohio

Novi Equipment Company
Novi, Michigan

John E. Mitchell Company
3800 Commerce Street
Dallas, Texas

O. A. Sutton Corporation
1814 West Second Avenue
Wichita, Kansas

Got a question that's been bothering you? Drop a line to Letters Editor, FLEET OWNER, *330 West 42nd St., New York 36, New York.*

Piggyback Application Granted

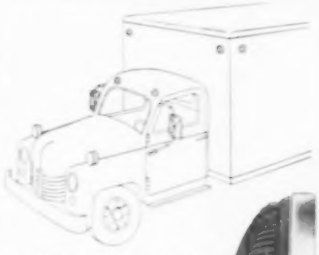
The Interstate Commerce Commission has granted Pan-Atlantic Steamship Co. permanent authority to operate over the intercoastal routes formerly used by Waterman Steamship Co. Pan-Atlantic has been operating over these routes, which link East, West and Gulf Coast ports, since 1955 on a temporary permit.

Both Pan-Atlantic and Waterman are controlled by McLean Industries of Mobile, Ala., headed by former fleet owner Malcolm P. McLean. ICC would not grant McLean permanent authority to operate the piggyback service until he had disposed of his controlling interest in McLean Trucking Co., of Winston-Salem, N. C., contending that this was a violation of the Interstate Commerce Act. McLean acceded, clearing the way for the permanent grant.

for greater safety

unique twist-off lens on K-D's new marker lite

Flush-mounted new KD 525 Clearance, Marker or Cab Lite requires no tools to remove lens for bulb change. No screws or retaining rings to lose. *Depth less than one inch!* Diameter 2⅝". Patent pending for the unique twist-off design. Acrylic plastic lens engineered for light output far exceeding SAE requirements . . . full 180° light distribution. Rigidly supported 2 cp bulb with perfect contact assured by heavy spring bronze contact. Neoprene closed cell gasket seals light from moisture and dust. Superior Lexide mounting pad. All aluminum high gloss finish housing. Absolutely rustproof thrughout. Simple to mount . . . ⅛" hole to drill for wire . . . two holes for sheet metal screws. KD 525 is an ideal compact lite . . . easy to mount, easy to change bulb . . . a quality product for long life.



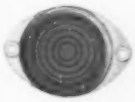
KD 525

KD 525

other unique clearance marker lites

KD 524-1

Both KD 524-1 Armored Lite and KD 524 Clearance Marker Lite have the same unique twist-off design lens as KD 525 to assure easy bulb change without tools, screws or retaining rings.



KD 524

The Complete Line These Clearance Marker Lites are indicative of K-D's valuable single-source-service of all automotive Saftee Products.

K-D LAMP COMPANY
1910 ELM STREET • CINCINNATI 10, OHIO
WAREHOUSES: ATLANTA - BOSTON - CHARLOTTE - CHICAGO
DALLAS - KANSAS CITY - LOS ANGELES - MEMPHIS - MINNEAPOLIS
NEW YORK - PHILADELPHIA - SAN FRANCISCO - SEATTLE - TORONTO

THE COMPLETE LINE · SAFTEE PRODUCTS

Low-cost preventive maintenance is yours with

Liberal exchange program provides you with factory reconditioned air brake equipment that's warranted same as brand-new units

When your air brake equipment reaches the replacement stage, you swap it, at nominal cost, for Factory Reconditioned Units carrying the same warranty as new units.

That, in brief, is the Bendix-Westinghouse Repair Exchange Service for keeping your air brake system at peak operating efficiency. You actually benefit *five* ways:

Bendix-Westinghouse Repair Exchange Service

1 It reduces operating costs: Replacing worn air brake equipment with Factory Reconditioned Units at a minimum flat rate lowers your per-mile operating expense.

2 It assures dependability: All Repair Exchange Units carry the same warranty as brand-new devices—and can be depended on for the same long service life.

3 It guarantees top-flight performance: All parts, worn or subject to deterioration by long service, are replaced with *brand-new parts* under the Repair Exchange Plan. All units are assembled and tested in the same manner as new units, and maximum performance is *guaranteed*.

4 It provides for modernization: *All* Bendix-Westinghouse Factory Reconditioned Units are rebuilt *to include the latest engineering improvements.*

5 It's convenient: No waiting for parts or units. Just call or see your nearest Bendix-Westinghouse distributor. He will replace your worn units with Factory Reconditioned Units *right from his stock.*

HERE'S YOUR PROOF

This is why Bendix-Westinghouse Factory Reconditioned Units can carry the same warranty as new units:

1 Old compressors, governors, valves and other units are completely disassembled and examined at the factory by experienced experts.

2 Damaged material, and all parts subject to the deterioration of time, are scrapped and replaced with brand-new parts.

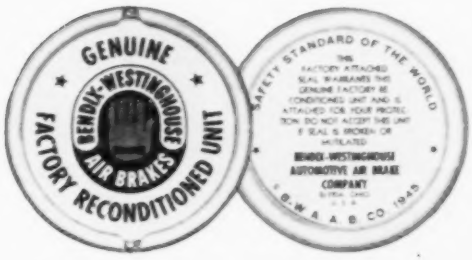
3 All parts to be used again are thoroughly cleaned by Kolene, degreasing, sand and shell blasting operations.

4 Following inspection, all parts to be used again are fully reconditioned, which often means refinishing to standard .010", .020" and .030" over- and undersizes.

5 All units are assembled and tested in the same manner as new units and are *guaranteed to give the same dependable performance.*

HERE'S YOUR GUARANTEE

Look for this official Bendix-Westinghouse seal on all reconditioned air brake units. It's your guarantee that those units will perform with the same efficiency as brand-new units.



SEE YOUR BENDIX-WESTINGHOUSE AUTHORIZED DISTRIBUTOR!

Bendix-Westinghouse AIR BRAKES

AUTOMOTIVE AIR BRAKE COMPANY

General Offices and Factory: Elyria, Ohio • Branches: Berkeley, California and Oklahoma City, Oklahoma

Good fleet shop practice pays off with GENUINE SCHRADER TIRE VALVES, CAPS, CORES, AND GAUGES

Most flats give ample warning for you to catch 'em in the shop. And keeping valves always capped and properly cored should be a must in your fleet's shop practice. Make it a rule to:

1 **Specify** genuine Schrader Tire Valves, Sealing Caps and Cores, which are guaranteed airtight even at 250 pounds pressure.

2 **Keep stocked** on Schrader Caps and Cores with handy service packages and see that every valve is always capped.

3 **Gauge and record air pressures** daily with genuine Schrader gauges to catch unusual pressure drops.

And, remember, Schrader Chucks, Couplers, Chuck Gauges and Accessories help airlines operate faster and better.

A. SCHRADER'S SON • BROOKLYN 38, N. Y.
Division of Scovill Manufacturing Company, Incorporated

Schrader®
a division of SCOVILL

FIRST NAME IN TIRE VALVES
FOR ORIGINAL EQUIPMENT AND REPLACEMENT

Hendrickson Tandem Suspension units for Mack double drive 6-wheel tractors and trucks are offered as optional equipment by the factory. Trailing axle tandem suspensions are available through distributors and Hendrickson Mfg. Company.

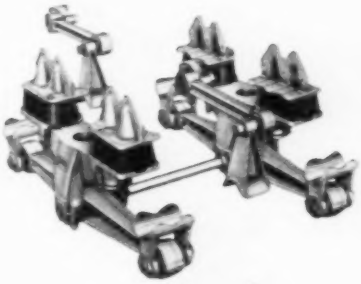
"We've standardized on HENDRICKSON suspensions," says Sprout & Davis

"Hendrickson suspensions have given us superior performance and low maintenance; that's the reason we standardized on them," says Mr. Herman Jenkins, Operations Manager for Sprout and Davis, Whiting, Indiana. The company operates over 200 tractors in its fleet equipped with Hendrickson tandem suspensions.

Mr. Jenkins states, "We use both the steel spring and the rubber cushion load Hendrickson suspensions. They are light weight and give us the dependability we must have in this type of operation." The fleet averages about 1,000,000 miles a month.

Aluminum beams and saddles resulting in 50% weight savings, are offered as optional equipment. Equal distribution of weight on the four-point frame mounting eliminates concentration of stresses and wear on any one point.

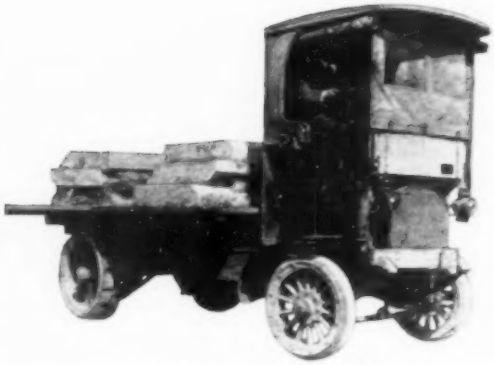
Hendrickson Tandems stabilize the load, eliminate brake and starting chatter, assure perfect axle alignment, and end tire scuffing. For hauling heavier payloads faster, cheaper—under all road and load conditions—equip *your* rigs with steel springs, rubber load cushions or *air* ride Hendrickson Suspensions.



HENDRICKSON Mfg. Co.

HENDRICKSON MFG. COMPANY
8001 WEST 47th STREET
LYONS (Chicago Suburb), ILLINOIS

CHECK THE IMPROVEMENTS Mack HAS MADE

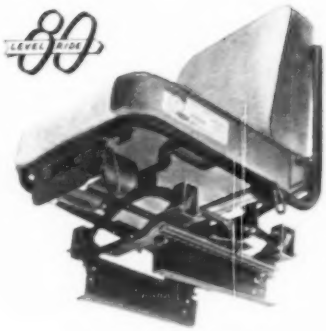


"Built like a Mack Truck" has been synonymous with sturdy dependability since the first Mack hit the highway.

There are many noticeable improvements which the years have brought, but perhaps none greater than the provisions for driver comfort and driver efficiency. Today, for example, the Bostrom "Level-Ride" 80 Seat is optional equipment on Mack Trucks.

The "Level-Ride" 80 is an entirely new concept in truck seating—the result of many years of experience and research by Bostrom engineers. When standing on a moving vehicle, you bend your knees to isolate vibration. When you are seated on a Bostrom "Level-Ride" 80, giant torsion springs in the suspension system act like knees to take up shock. The kidney-busting bumps and spine-jarring jolts of rough road vibrations are absorbed between the bottom of the seat and the floor of the cab. The driver floats over bumps and jolts in a straight line without back slap or back rub.

Used today by leading truck fleets . . . factory-installed as optional equipment by all truck manufacturers. Available for replacement on your existing trucks from your truck dealer or parts jobber. See your Bostrom distributor.



Bostrom "Level-Ride" 80 Suspension Seat

Bostrom Manufacturing Company, 133 W. Oregon St., Milwaukee 4, Wis.

FREE MOTION PICTURE IN SOUND AND COLOR *"Gentlemen, Be Seated," an informative motion picture on modern highway travel, is available without charge for showing to groups. Write for booking date.*

BOSTROM®

Want to file this page or route it along? . . . Tear here

FLEET OWNER
PLEASE ROUTE TO:

FLEET TRENDS . . .

ICC has finally decided against "hot cargo." The Commission dropped a bomb on labor, and the teamsters in particular, by saying that common carriers can't "bargain away" their obligation to serve the public by honoring hot-cargo clauses. Now that ICC has taken a stand at last, carriers are caught in a squeeze between ICC and the teamsters.

ICC has no authority to pass on legality of hot cargo insofar as it is made part of a contract. Nonetheless, ICC specifically stated that the law imposes clear duties to the plublic on common carriers. "If the public is to be adequately protected," said ICC, "common carriers must be held strictly accountable for their performance. Clearly, a common carrier may not bargain away its statutory obligations to the public and thereby relieve itself of such obligations."

Watch for Supreme Court rulings by mid-1958. The high court has accepted three hot-cargo cases for review—from New York, Los Angeles and Oklahoma City. And it's almost certain that the ICC and recent NLRB rulings against hot-cargo clauses will come before the court, too. No arguments on these cases have yet been scheduled for the Supreme Court, which means they'll be heard late in this session—probably in March or April. Rulings should be forthcoming by May or early June, when the court usually recesses.

—0—

Transit bus men plan maintenance chain for rental trucks. A special committee of the American Transit Association has met in New York to start the project. Object is publication of a directory of local transit systems and affiliates around the country that are able to provide emergency repair service for rental trucks owned by transit companies.

A list of service stops will be put in each rental truck, according to initial plans. An ATA survey has indicated that some 50 members or affiliates, having facilities in nearly 100 cities, are interested in the project now.

—0—

ICC Chairman Owen Clarke has resigned from the Commission. President Eisenhower has nominated Abe McGregor Goff, general counsel for the Post Office Dept. to fill the vacancy. The rest of the Commission's membership will remain virtually unchanged. The President has made known his intention to reappoint two members—Anthony F. Arpaia and Rupert L. Murphy—whose terms expired in December. Clarke's successor as chairman during the coming year will be Howard G. Freas.

—0—

Here's the legislative outlook for the 1958 Congress. Bear in mind that this will be the second session of the 85th Congress, not a new Congress—so all of last year's bills are still alive. These are three key measures:

(1) Bill aimed at restricting the agricultural exemption. Chairman Warren Magnuson (D-Wash.) of the Senate Commerce Com-

Continued on next page

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mittee expects a lot of action in this direction.
(2) Legislation to help clear the way for the Post Office to use trucks on more mail runs. This will be pushed by the Common Carrier Conference of American Trucking Assns.
(3) Bills designed to help the railroads pull out of what some people are calling a "deteriorating" economic situation. Hearings will be started January 13 by an Interstate Commerce subcommittee headed by Sen. George Smathers (D-Fla.). Ideas on railroad aid will be aired at these sessions.

—0—

Intercity fleet is set to buy railroad's bus subsidy. The Boston & Maine Railroad has arranged to sell its Boston & Maine Transportation Co. to Trailways of New England. Trailways is itself a subsidiary of Safeway Trails, Inc., of Washington, D. C., and Virginia Stage Lines of Charlottesville, Va. Trailways has operated for more than 25 years in Massachusetts, New Hampshire and Maine.

Trailways plans to run the B&M line independently, as a separate corporation, and to retain present employees of the line. Trailways has asked for temporary operating authority pending final approval from the ICC.

—0—

Truckers and railroads each won a big Supreme Court victory in December. But competition between rails and truck operators has been fired considerably by the court rulings. In a ruling favorable to truckers, the Supreme Court ordered ICC to reconsider a trucker's (Schaffer Transportation, Inc.) application for operating certificate for freight service between points now served exclusively by rail.

The railroads won an 8-1 high court decision: ICC doesn't always have to restrict a railroad-owned trucking company to operations directly connected with the railroad's freight service. It had been argued that the Transportation Act of 1950 required such a restriction. The particular case that brought this ruling was the Rock Island Motor Transit Co. request for railroad restriction.

Railroad trucking subsidiaries can get new routes, said the Supreme Court, provided there are "special circumstances" present. The restriction applies only in cases where a railroad seeks ICC approval for acquiring a motor carrier. The court said the ICC can properly grant approval, without limitations, of applications for new routes.

—0—

Utility wants to sell its bus rights to the cities served. The Connecticut Railway and Lighting Co. has proposed selling its intra-city operating rights in seven Connecticut cities to the cities themselves. The utility-owned lines lost just under $35,000 in the first ten months of 1957—and it feels the cities are the logical buyers.

Hendrickson Model BD-270 Tractor available with 6-cylinder P&H Automotive Diesel power.

Have you considered all the sources of Diesel power?

Take a quick review of your present diesel power. Are you fully "up" on the latest technical developments that are making the P&H Diesel the most talked about engine in the industry today—that are making possible lower operating costs, increased payload capacities, better road performance, less off-the-highway time for servicing and repairs?

Because of modern aluminum design, heavy-duty P&H Diesels are highly efficient—deliver far more horsepower per lb. of weight than any other diesel. Mileage has exceeded 7 miles per gal. carrying 60,000 pounds G.C.W. Weight savings have made possible increases up to 1,000 lbs. in payload capacities.

These and other P&H innovations, such as the new mushroom connecting rod and piston assemblies, are making many old timers in the field reinventory their thinking. For complete information write Dept. 432-B, Harnischfeger Corporation, Milwaukee 46, Wisconsin.

HARNISCHFEGER

DIESEL ENGINE DIVISION
Crystal Lake, Illinois

P&H DIESELS

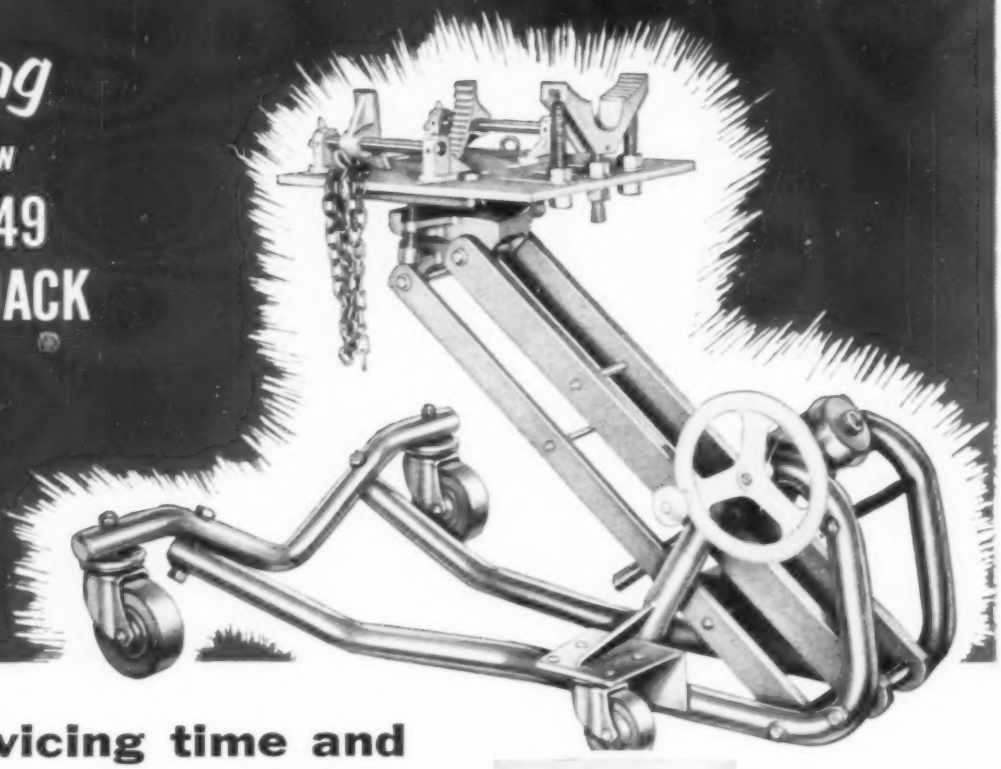
NOW! one man can handle any heavy-duty truck transmission!

Announcing

the revolutionary new

WALKER No. 49 UNI-CRADLE JACK

for ALL transmissions, torque converters, differentials.



Slash servicing time and costs as much as 60%

Man hours saved mean man-sized cost reduction. And that's just what the amazing new Walker No. 49 Uni-Cradle was made to do. Take those *extra* men off heavy-duty truck transmission jobs! For the first time, one man—and one man alone—can handle any transmission removal or installation, thanks to the No. 49.

Two unique Walker-developed features make the difference; side control design and the revolutionary tilt control that moves a transmission as little as a hair, as much as 10% off center, in any direction—front, back, right or left! The head pitches forward and backward for spline alignment, tilts to either side for dowel pin and bolt alignment!

As for the side controls: notice how the elevating wheel is placed so the operator can visually align the pilot shaft and still be in comfortable reach of *all* controls.

The revolutionary new Walker No. 49 Uni-Cradle has been pre-tested and approved by the nation's leading fleet service shops and truck manufacturers. See for yourself how much this great new transmission jack can save you in man hours and dollar costs. Just fill out and mail the coupon below:

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Adaptor for Allison transmissions goes into place in a jiffy . . . handles Chevrolet Powermatic and Ford Transmatic with greater precision and ease than ever before possible.

Differential adaptor handles all types of truck differentials (except top mounted)—including double reduction, two-speed and forward drive units of tandem rear ends.

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World's leading maker of jacks

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FLEET OWNER

THE YEAR AHEAD

No sharp recession is in sight. America is in the midst of a leveling-off process after the two biggest years our economy has known. And prospects are for renewed expansion by the end of 1958.

For fleet operators this means a relatively lean profit year compared to the recent past—but the economy is sound and so are business prospects.

Forecast: Fleet Picture Looks Good Even in a Tightening Economy

YOU, THE FLEET OPERATOR, can identify yourself closely with the general economic trends predicted for 1958 in American business. Often, a general wrap-up of facts and figures can be misleading in regard to a specific industry. But for 1958 the trucker and bus man can consider themselves very near to or slightly above the position of the average business operator.

On the next two pages you'll find the 1958 economic forecast for business in general. This spotlights such factors as capital investment, government spending, construction and industrial production. On this page are factors especially pertinent to fleets. All information is provided by the McGraw-Hill Economics Dept.

Intercity ton-mileage can't change much in 1958 from the 1957 level. Limiting a downward change is the fact that trucking is pretty insensitive to a recession—and the 1958 outlook doesn't even add up to that. Limiting an upward change is the fact that the economy just isn't going to grow very much in physical terms in 1958. The total amount of goods and services will be on a plateau. A good estimate is that ton-miles will be up less than 1% from 1957.

"Leveling off" won't hit trucking hard because it won't be hitting it directly. As it now stands, some 27% of truck fleets are for-hire carriers, 17% are in food distribution, and 12% in wholesale and retail trade—and it's this end of the economy that's going to make the gains in 1958. That represents an optimistic outlook for over half the truck fleets—particularly in the stop-and-go type of haulage.

On the factory level, truck shipments of nondurables will hold up well. Cutbacks will be centered mainly in basic industries (mining, steel, machinery) the large bulk of whose shipments are handled by the railroads.

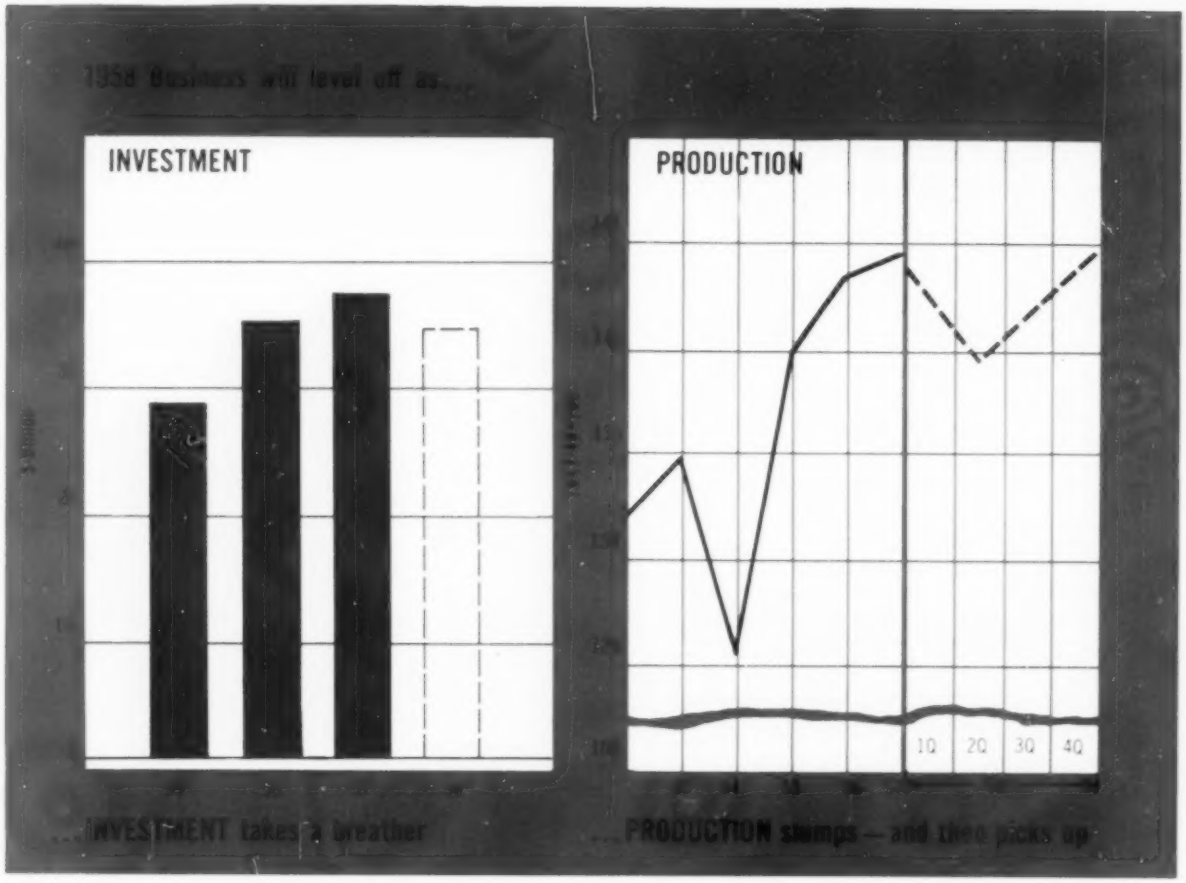
Businesss will be intensely competitive, perhaps experiencing the most competitive year since the end of World War II. And that always means leaner profits for you.

It's a two-edged sword as far as truck transport is concerned: Efforts to keep distribution costs in line could mean both fewer and shorter truck movements from factory to retail outlets. On the other hand, the long-term shift to cheaper forms of transport will be intensified.

Long-term growth picture is good despite the lull in economic growth. Population will still be booming and moving into suburbs. Industry will still be pushing to new locations, setting up branch plants, and shopping for more efficient shipping. This is all part of the growth picture that's expected to produce renewed activity toward the end of the year. (See charts on next page.)

Bus operators are rightly optimistic about the new year. They may very well prove out the old saying that you're never in trouble if you don't know about it. For example, the transit, intercity and school services intend to spend about $250-million for new motor buses alone in 1958. And the industry will spend an additional $350-million on maintenance costs.

The intercity industry foresees a 25% increase in passengers in the next five years, and the transit decline seems over. *Continued on next page*



Forecast: 1958 Spending Up,

Business, government, and consumer spending should be up 2% over '57—a small but firm rise. But profits could drop 5% as the general economy levels off.

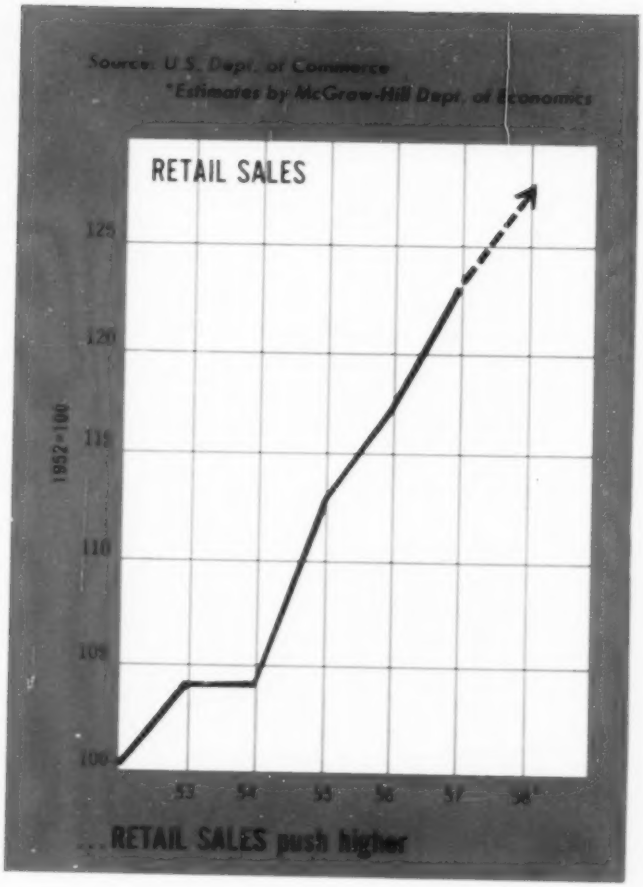
1958 SHAPES UP AS A YEAR of mild adjustments. It's clear that business faces some rough problems in the immediate future. But it's also clear that long-range prospects are for rising economic activity—with a good chance that the resurgence will be well under way by the end of '58.

The specific fleet forecast is on the preceding page; here you have the general business outlook. Graphs and all other information provided by McGraw-Hill's Dept. of Economics.

GENERAL BUSINESS: A leveling process has been in motion since mid-1957. And it's all too easy to exaggerate the soft spots that have developed in the last few months. Instead of the fourth-quarter spurt everyone expected, there has been a definite lull in most lines of business toward the end of 1957.

The slump in Wall Street is a good measure of how much business confidence is shaken. And in credit policy, we've already seen the first signs of a switch to easier money policies.

By comparison, there's no doubt the economy was in better shape at the beginning of 1957: production, incomes and employment were not only high, they were increasing month by month. It was a tidy boom that carried over and set a fast pace



...RETAIL SALES push higher

Profits Down

in the first half of '57.

The comparison is the reason for the feeling of pessimism in some forecasts for the coming year. You hear terms like "mild recession," "downturn" and "painful adjustments." Actually, the prospects for 1958 just aren't that bad.

Spending by business, government and consumers are the three major sectors that make up the economy—and there the outlook is firm. Over-all gain will be about $9-billion over the $435-billion level of 1957. By past standards, that's not much of a gain—but it's still upward.

On the negative side, profits should dip somewhat, industrial production won't quite match the '57 record, and unemployment could total near 6% of the labor force at some time during the year. Nonetheless, the over-all picture will be one of gradual readjustment, not much different from what we've been getting in late 1957.

CAPITAL INVESTMENT: A slack in spending for capital goods will be one of the weaknesses of the '58 economy. According to a recent survey by the McGraw-Hill Economics Dept., business investment in new plants and equipment will drop about 7% this year. In dollar terms, that's a cutback to less than $35-billion from 1957's figure of $37-billion.

Most companies have no incentive for further expansion now, what with a squeeze on profits and excess capacity. Since 1955, manufacturing capacity has risen 13%. Actual production has registered little gain since then.

Thus, manufacturing output has slumped to about 82% of potential capacity. The impact of this on capital investment is responsible for the biggest single adjustment seen for '58.

Nonetheless, the bottom won't fall out of the capital-goods market. Most cutbacks are confined to manufacturing—and in non-manufacturing areas the outlook is still good. Petroleum and utilities plan to increase spending in '58.

Another bright spot is research and development. There'll be no cutback in research. This represents a $7-billion yearly investment, and new-product development can set the stage for a new wave of capital investment.

CONSTRUCTION: Firm and rising is the word, despite the drop in industrial expansion. Construction activity will bolster the economy in '58. Government estimates put the total construction bill up about 5%. Since the rise in building costs should taper off to 3%, a solid gain in physical volume will result.

Home building still suffers from a hangover of tight credit and high costs. Many builders are holding back on plans for '58. But the recent steps to ease credit will do a lot to help housing in the long run—and they will also help shift resources from industrial construction into municipal projects now struggling without financing.

Adding in government projects, there's about a 10% improvement expected over '57's rock-bottom level in private housing. By the end of '58, it should be a plus factor in the economy and no longer the drag it has been this past year.

THE HIGHWAY PROGRAM: Up 14% in expenditures over 1957 is the optimistic outlook. In cold figures, $5.5-billion will be spent during 1958. Thus, the program does provide a timely boost to the economy.

Despite a slow start in '57, the interstate projects now seem to be moving pretty much on schedule. (See the new Interstate Route Map in last month's FLEET OWNER, page 50.)

In '58 the highway program will get out of the

planning stage and into actual construction all along the line. That's a far cry from finished highways and better transportation, but current spending will bolster the economy.

INDUSTRIAL PRODUCTION: Off slightly in the first few months of '58 is the forecast. It should reach a low in the summer months and then pick up in the second half of the year (see the middle chart on preceding pages).

A wage-bargaining year is a good prediction for '58, too. So there is the possibility of strikes in some industries, which might well accentuate the downward swing. Over-all, however, output should be down only about 1% to 2%.

Most production cuts will center in the "hard goods" industries: steel, automobiles, appliances and furniture. The chief victim will be the maker of industrial machinery and equipment—there is no way to absorb the decline in capital goods, particularly the type used for plant expansion, without some "painful adjustments."

Inventories are not top-heavy, except for a few durable lines, as we enter '58. This spotlights the biggest contrast with the adjustment period of 1953-54. In the post-Korean recession, there was a dramatic shift to heavy liquidation of inventories. In less than a year, business worked off about $11-billion of excess stocks. Production dropped off about 10%.

By contrast, business has worked hard in '57 to keep inventories at manageable levels. This kept the recent boom on relatively safe ground. Cuts in inventory in '58 probably won't be over $2-billion—which is small compared to the "inventory recession" of 1954.

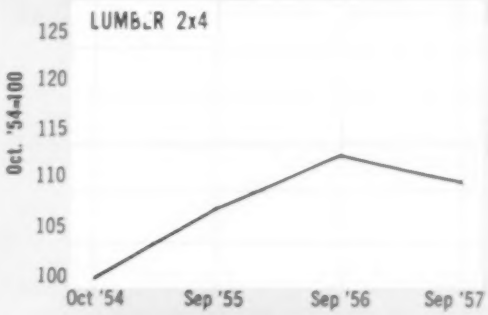
GOVERNMENT SPENDING: High level defense outlays will continue. Cuts will be small and temporary, pretty well centered in aircraft shipments. High government spending assurances through 1960 will bolster business thinking about future planning.

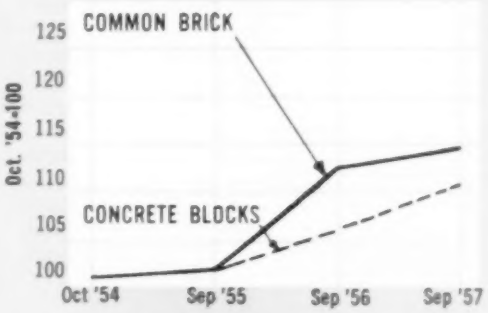
The government is a substantial plus factor in the long-range business outlook. The 1958 increase may not be large in dollars, but the entire government program makes an optimistic picture for the businessman today.

CONSUMER SPENDING: Biggest aid to the economy will be consumer spending. It will do enough to insure an upward swing soon, despite the pause in business activity. Consumption expenditures account for two-thirds of the country's total—so a moderate rise is a major factor in offsetting recession.

Consumer spending should be up 3%. Personal income is the healthiest sector of the economy. In '58 it will go up $10-billion (total over $25-billion). The consumer is saving more, taking less credit, and should be helped further by stable prices.

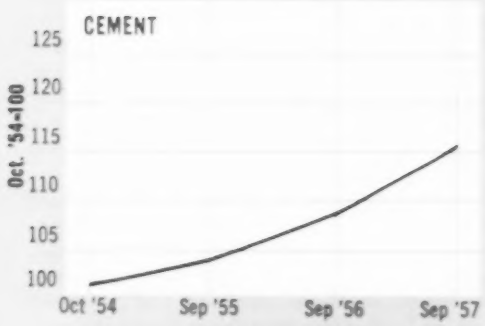
Construction factors have an

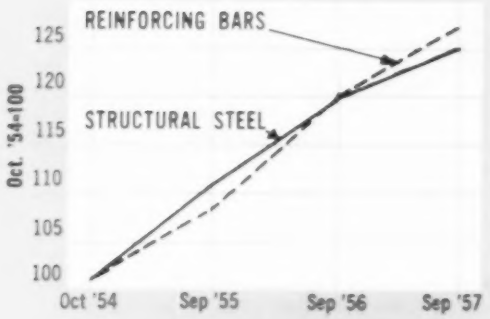


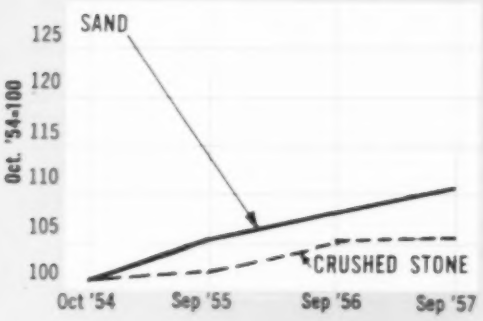


Charts based on information provided by *Engineering News-Record*, a McGraw-Hill publication

upward trend for '58







Forecast: Build Now—Prices Will Keep On Climbing in 1958

Costs of construction's "Three M's"—Manpower . . . Materials . . . and Money—are steadily increasing, so . . .

. . . If you need facilities, don't wait for prices to come down before building. It will cost more later

IF YOU HAVE BEEN postponing terminal, shop, office or other construction, waiting for building prices to come down, you'd better glance at the outlook for 1958. Examination of the facts will prove you should build today.

The figures show that 1958 will be a record year for building costs. For example, the Departments of Commerce and Labor see a likely rise of 3% in construction costs for '58. Furthermore, none of the experts forecast a downward trend or even a leveling-off in the foreseeable future.

So, if your need requires and your finances permit, then build now—it's going to cost you more the longer you wait.

Business within the fleet industry looks hopeful for the coming year—better than last year for many, and better than a large number of other industries. Continued expansion in some branches of the fleet world seems inevitable.

In view of the probable industrial rise and your own estimated rise over that, consider carefully what additional buildings you need to meet the demands in '58.

This is necessarily an individual situation, depending on your type fleet and the industries you serve. A danger lies in over-capacity. This danger is not always easy to see, but take it into account in your planning.

Chances are good that many companies will be on the fence deciding whether to build new terminal, warehouse or shop facilities now. At present some 17% of the common carriers are planning to expand or rebuild in '58.

In considering construction of any size, there are three major areas which must be explored: Manpower . . . Materials . . . and Money. Here's a rundown on the situation as it stood at the end of

1957—with calculated guesses as to where it will be heading during the next twelve months.

Manpower costs can be counted on to increase. With new contracts coming due, sliding-wage increases already on the books, and the continuing need for skilled and unskilled laborers, there is every likelihood that last year's all-time high will be topped.

Construction workers won higher wage increases in '57 than in the previous years. Both skilled and common laborers netted substantial boosts in wages and fringe benefits. And the wage spiral will continue, according to the authorities.

Labor costs will vary throughout the country, of course. The average union wage in all the building trades had reached a high of $3.04 an hour by July 1, 1957—the date these figures were compiled by the Bureau of Labor Statistics. This was up 14 cents an hour from 1956. You can get an idea of what to expect by this partial listing of national-average rates:

Bricklayers	3.62
Carpenters	3.13
Cement finishers	3.11
Electricians (inside wireman)	3.34
Helpers and laborers	2.29
Lathers	3.43
Painters	3.01
Pipefitters	3.35
Plasterers	3.50
Plumbers	3.35
Sheet-metal workers	3.20
Structural-iron workers	3.30

Manpower accounts for the chief costs in any building you are doing—sometimes running as high as 70-80% of total building outlay. And this is the one area where costs will not travel downward, barring a major national economic crisis.

So, look to labor costs to continue to be big. Start figuring here to determine what your proposed new facility is going to cost.

Materials prices for this year should continue to be a three-pronged fork. Some prices will soar higher than ever, others should drop below last year's figure, and many may hold their own—rising directly with the cost of living and the economy.

The three major construction elements are representative:

- Cement, sand and crushed-stone products have been classified "the fast risers" by the experts. After showing a tapering rate of increase in '56, they rose sharply during the past year. The increasing use of cement and concrete in industrial construction accounts for the expected jump again this year. Bulk cement showed the greatest per cent of change of any construction material during 1957, up 6.9% over the preceding year.
- Lumber prices are expected to go down again this year, although a leveling-off is anticipated. Lumber products (plywood interior and exterior materials, etc.) will also drop, but not with last year's thud.
- Structural steel will be up this year, as will reinforcing steel bars. The rises should not be quite as sharp as 1955-'56 or 1956-'57, but count on a substantial increase. The price was up 5.5% in '57 over the previous year. This can be accounted for by the increased costs of developing and transporting the ore and the finished product.

Money costs may be the one area where some easement is felt this year. However, any relief will be so small that its effect will hardly be noticed. And it will only be a measure of release from 1957's unusually high prices.

Money costs are the highest in years. So be prepared to pay substantially for it. With unemployment up and production down somewhat, money should be easier to come by. But there will be a correspondingly higher demand for credit, and you will need an attractive proposition to get it.

More than the other two factors—manpower and materials—money costs depend largely on your own individual situation. Banks are reluctant to back construction loans, except on safe, "take-out," short-term loans for very good customers. And they won't be looking for this type negotiation during the year.

The lowering of the minimum interest rates to banks by the Federal Reserve in several districts will have little effect on consumer interest rates, since it only gives the banks an additional ½% to work with.

Your "take-out" partner, such as an insurance company or building association, is probably going to have to meet stiffer requirements from the bank. This will increase your liability and the difficulty of financing.

Your rates will be scaled according to your risk, your business and the terms you can negotiate.

In addition to the three major factors in construction, there are other costs to be considered. Such aspects of building as land, contractors' prices, local property taxes, the cost of moving and relocating your operations, and the cost of increasing your capacity and volume of business should be considered, to name a few.

Although these are not actually building costs, as such, they figure heavily in the "build now or later" question and should not be overlooked. None of them is likely to decrease in the foreseeable future.

Authorities agree that construction costs will continue to get bigger. However, there is a feeling that the momentum of increase is slowing down, somewhat. But it is going to cost you more the longer you wait.

Color Engineering: New Science Offers Two-Way Payoff to Fleets

Influential sales appeal and maximum visibility for safety—Carefully planned use of color on vehicles can assure you of both these benefits, says expert Howard Ketcham, Fleet Owner's new consulting editor.

EVER HEAR THE PHRASE "See Power"? It means visual impact, the quality of making people see, remember and register a reaction. How do you suppose your fleet vehicles rate?

It's a good bet you'll be mighty surprised when you learn some of the things that make for good "See Power"—as well as some of the factors that make for just the opposite.

Meet Howard Ketcham: Industrial Color Consultant

FLEET OWNER's staff has now been augmented to include a consulting editor on color and design. The new man is Howard Ketcham, who's been in business nearly 22 years as advisor to the top outfits in American industry. Currently, five of the nation's six largest industrial firms rely on his specialized experience in making precise color determinations. His work has helped to increase sales, profits and prestige for such diverse projects as prefabricated homes, trucks and chain stores. His work has also taken him into the fields of transit, railroading and boatbuilding.

H. KETCHAM

Editorially, Howard Ketcham is an editor of *American Fabrics Magazine*, a member of *Printer's Ink* magazine's packaging panel and a monthly columnist for *Television Magazine*. His first article for FLEET OWNER on color engineering starts on this page.

YOU CAN USE KETCHAM for color advice about your fleet. Any question of yours that he can handle by himself will be treated as another editorial service to FLEET OWNER's readers. For complete color jobs or related problems that require the work of Ketcham's private staff, you're entitled to a preferred fee from the Ketcham advisory firm.

So take advantage of color engineering—it's been proved to be good business.

Guesswork is old-fashioned in color design. There's no longer any reason for a haphazard choice that may not be doing the job it should. No reason, that is, except a failure to realize that the science of color engineering can be directed to serve you as you want.

Modern measuring methods, coupled with years of use and research, have lifted color styling out of the guesswork stage and put it on a scientific level. Now it's possible to predict with accuracy what reaction people will have on seeing certain colors and color combinations.

SALES APPEAL

First, does color attract? Ask that of any technicolor movie producer or the multi-million dollar hair-tint and cosmetic industries. Ask it of the man whose emblem is the barber pole, or of the National Electric Sign Assn. The answer will be an unqualified "yes."

And color can repel as well as attract. Over the past 23 years, Howard Ketcham, Inc., has spent thousands of dollars to get productive ratings of hundreds of color variations. We've found that every color has the power to attract or repel.

Color attracts in a variety of ways. First, by contrasting properly with other background colors and being easily and favorably noticed. Some colors just can't be seen at a distance—for example, the neutral-looking silver-gray used on some large fleets of trucks.

Second, color can attract business your way by being distinctive, memorable, and by identfying your product or service and your firm.

Colors should be honest and do their specific job. Let unusual but appropriate colors identify your fleet, and make no bones about it. The simpler the better. And the hardest good design to achieve is the simple, easy-appearing one.

Some colors are so bright and obvious that half the trucks on the road seem to carry them. What color are oil and gasoline trucks? Most of them are

Continued on next page

"A good color plan for vehicles is one

red and have white or yellow lettering. But who can identify which company's trucks they are? With few exceptions, nobody can tell one red oil truck from another.

Of course, laws restrict choice of color for these vehicles, and red is an appropriate warning color. That's why it's doubly important for each company to use a distinctive contrasting color for lettering.

Colors attract through association, both consciously and subconsciously. Truckers who travel the routes near the California and Florida orange groves know that green oranges are sprayed orange. Fruit growers and grocers know that the natural green fruit won't sell because oranges are associated with the color orange. Proper color choice is usually not as obvious as it is with oranges.

The repellent characteristics of color are more easy to identify. What driver would stop at a diner that served yellow steak, green french fries, blue milk or gray coffee? The standard appetizing colors for these items are firmly associated in people's minds.

It's easy to repel customers by using an improperly colored vehicle. What customer likes to buy foodstuffs and beverages from a dirty-colored truck? What potential customer would use a moving service whose vans' colors convey an impression of sloppiness? That's the color engineer's job—to know what colors create what impression in the minds of customers.

An excellent example of color use is the Borden dairy trucks. They achieve visibility, memorability and good association in customers' minds for their product.

The lower section of the truck is an appetizing butter yellow, the upper section white. In the upper left corner, the trademark is carried in a large yellow daisy. Lettering is simple and limited to the company name (in red) and the type of product sold (in blue). The overall effect is clean and appetizing; the trucks are easy to recognize; and the trademark ties in to all the company's products. The vehicle attracts, appeals and sells . . . a good color design.

Color can work for every fleet whether it's selling a product or a service. There are many complex reasons—but it is possible for the fleet to benefit by all of them. And in order to make this possibility a reality, you have to plan your colors with your definite needs in mind. As FLEET OWNER pointed out in its survey of customers of the 7 Brothers moving company (May '57, page 56) over a fifth of your sales are influenced by vehicle appearance) and the best overall advertising sales campaign is the one that integrates all its contributing factors.

It is possible to take a diaper laundry fleet and color it so the public recognizes on sight the company, the type of work and gets a feeling of dependability. At the other end of the scale, it's also possible to design funeral cars to be more attractive by choosing the right colors to represent qualities of condolence and dignity.

In bus fleet work, my firm color-conditioned New York's Fifth Avenue Coach Lines vehicles to be more pleasing and more comfortable to the passengers' eyes. Visibility of the vehicles was also enhanced by the exterior paint. In a different city or in a different type of transportation, the problems might have to be solved with entirely different colors—but it can be done.

SAFETY-VISIBILITY

Accident prevention is one factor of your operation that you do have great control over. There are a lot of costs that remain static or are decided for you—but losses due to accidents can be held down by an intelligent safety program.

Anything that aids your drivers is a definite plus in a safety program. Likewise anything that enables pedestrians or other drivers to see your vehicle in time to avert an accident. Specifically, interior and exterior color of cab and vehicle serve these money-saving ends.

A damage suit was won by a railroad, one of whose locomotives killed a man. The suit claimed the victim couldn't see the train approaching—but the jury found for the railroad because the particular locomotive was painted chrome yellow and scarlet. Nothing could have been proved more visible against the green foliage background along this particular right-of-way.

What would a safety expert or a jury say about the visibility of your fleet vehicles? The next time a driver has an accident or is dented by a car that didn't stop quickly enough, take a look at your vehicle. Could you have seen it from a distance? Really seen it well enough to judge size and distance?

Bright colors aren't always best for safety, although there are very many good, appealing and safe color combinations.

Safety colors must be planned with road backgrounds in mind: the ground, the highway, foliage, fog, sunlight and nighttime—all have color and all tend to engulf a vehicle in some degree of invisibility. Bear this in mind.

way to boost sales and safety records"

One West Coast fleet tried a green and yellow color scheme. This didn't show up well against the local greenery, so colors were changed to black and yellow. This in turn didn't show up well against the Nevada desert which was part of the run. It took a color expert to determine that black and orange were the only safe color combination for use against both backgrounds.

Color is important on the highway as well as on the vehicle. Black on yellow gives higher visibility than other colors used on road signs of the non-reflectorized type. It's more than worth your while to impress on your local community governments that safety on the roads depends in large part on high-visibility signs.

For the new interstate system, AASHO has designated specific colors and shades of colors to be used on markers by all participating states. October's Fleet Trents (FO, p 54) has the AASHO specifications. Maybe it's time that fleet operators adopted a safety color standard, too.

Certain colors lead to accidents when used on vehicles. Gray and dark maroon vehicles are particularly dangerous, figuring in a high percentage of dusk and dawn accidents.

Also high on the list are fleet vehicles whose colors have been picked because they don't show dirt. Drab industrial colors on vehicles that travel industrial areas are an invitation to accidents.

Have you asked your drivers if they're afraid their vehicles can't be seen easily enough? Have any of your drivers added reflectorized tape strips to their vehicles? It may seem too obvious but if you haven't checked drivers on this point, you're overlooking a vital safety factor.

A comfortable driver is safer than one who's fighting eye-strain or nervousness induced by poor interior color styling. Color can stimulate a man or lull him to sleep. Color can also give a man a sense of importance and pride in his job if it is planned to do so.

In trucks and buses, the driver's compartment should be color-engineered to make the driver comfortable and alert at the same time. This is a tall order—but, once again, it is possible with intelligent color planning.

Color aids terminal safety in the same way it helps vehicle safety. Properly painted walls and equipment ease the eyes and boost morale. Don't sell color short anywhere in your fleet.

Color Contest: Which Fleets Have the Best Vehicle Designs?

HERE'S THE EASY WAY TO ENTER:

1. Submit a 3"x4" four-color transparency showing the full broadside view of your vehicle. Additional views showing front and back of vehicle will make judging easier—all must be 3"x4" size. Four-color photos accepted, but transparencies preferred.

Be sure to have the picture taken from a point as near the vehicle as is possible. However, the entire vehicle must be shown.

2. Submit on your company letterhead, in 200 words or less, the reasons for choosing your color scheme and the ways in which it has benefited your firm.

3. Deadline: August 15, 1958.

HERE'S WHAT WINNERS WILL RECEIVE:

1. A handsome award plaque from FLEET OWNER.

2. National recognition through an announcement of winners in the November, 1958 issue of FLEET OWNER. Four-color reproductions of the winning vehicle pictures will be printed in the November issue if the winning fleets agree to defray the expense of four-color plates in FLEET OWNER.

3. Up to 500 reprints from FLEET OWNER of the award-winning announcement in November's issue. These will include whatever pictures are printed as specified in Item 2. These reprints will be free of charge to winners.

4. Additional awards. More than one winner in each class (see below for category classifications) will be chosen in the event that two or more qualified fleets have had differing problems to overcome.

HERE ARE THE CONTEST CLASSES:

1. TRUCKS. Separate awards for winners in these operations: common carrier, food distribution, government, construction and mining, industrial, petroleum, public utilities, wholesale and retail delivery. Please indicate your type of operation if it is not identified in your letterhead.

2. BUSES. Separate awards for winners in transit and intercity operations.

HERE'S WHERE TO SEND ENTRIES:

Contest Editor, FLEET OWNER
330 West 42 Street, New York, N. Y.

Right Now — It's Time for You to

WHAT THE M.E. CONTEST MEANS TO MEN IN TRANSPORTATION

M.E. means maintenance efficiency and it sums up the whole purpose behind this competition—to point the way toward better maintenance practices.

HOW A FLEET QUALIFIES TO ENTER THE M.E. CONTEST

The contest is open to any truck, bus or passenger car fleet—regardless of size or the type work you're in. You will compete only against other fleets in the same size and vocational categories.

MODERNIZING MAINTENANCE was the reason for starting the Maintenance Efficiency contest in 1930. But since then, the annual competition has taken on a new meaning . . . demanding tough self-examination by fleet owners and offering chances for comparison with what others are doing.

For every entrant—win, lose or tie—there's an opportunity to uncover inefficient and costly practices through the self-analysis which is necessary to meet the requirements of the contest. Comparing his own results with those of similar operations, a fleet owner can see where he has fallen down, how he can improve efficiency, how to save money without impairing efficiency.

And to the winners, there are these extra benefits to cash in on:

- Increased employee morale
- Community recognition
- Industry-wide prestige

This year, there will be 56 regular awards—24 to bus companies and 32 to other fleet operations in various vocational categories. In addition, special awards will be presented to operators who fall outside specific categories listed, but who have a superior maintenance program.

Fleets competing will be divided by both type and size. Every attempt has been made to guarantee that your fleet will be matched against people with the same problems you have.

Bus industry awards will go to intercity and transit operations in the four different size categories. Truck industry awards will be made on a basis of size and vocation. The eight vocational categories are: for-hire carriers, food distribution (including beverage fleets), government, construction and mining, industrial, petroleum production and hauling, public utility, and wholesale and retail delivery fleets.

How does the judging work? The basic work of classifying and reviewing data gets underway as soon as your entry is received. This is handled by FLEET OWNER's staff. Data are then turned over to the judges to be evaluated.

These judges are industry men, chosen for their familiarity with maintenance procedures. Each year a new slate is chosen.

The judges elect outstanding companies in the groups into which the contest is divided. They then present their findings in a detailed report to a five-man board of review which picks the winners from among the finalists.

Members of the board are men nationally known and respected throughout the industry. They are appointed for a term of two years.

Neither the review board nor the judges may have any connection with any of the contestants. When the review board has made its selections, a permanent committee of awards must unanimously approve and endorse the winners.

Here's how to enter your fleet in the 29th Maintenance Efficiency Awards contest. All you need to do to get things rolling is pick up the phone, write us a letter or send a telegram. The address is FLEET OWNER, 330 West 42nd Street, New York 36, N.Y. The phone number is LOngacre 4-3000.

We'll rush you the necessary entry forms by return mail. The forms are not complicated. You simply file duplicate copies of an easy-to-follow standardized entry blank. FLEET OWNER realizes that most operators do not have the time or manpower to fill out elaborate entries.

But there's a deadline for entering the contest. Entries must be in the mail by midnight, June 2, 1958. Awards for 1958 will be based on your maintenance data for the calendar year 1957.

Why wait though? You can enter anytime before the deadline. And the sooner you get the necessary forms, the sooner you can put your fleet in the running for an M.E. Award.

Enter the 1958 M.E. Contest

M.E. AWARD FLAG, given to all winners, is a handsome purple and gold pennant which can be hung on a wall or flown from a flagstaff. Winners of consecutive Award flags get an extra star showing the number of Awards won.

M.E. AWARD PIN can be given to employees by management as moral boosters. Pins are available at cost.

M.E. AWARD PLAQUE is designed to hang in the office of the fleets winning the contest. Plaques are given to all winners, serve as morale-boosting reminders of accomplishment.

M.E. AWARD DECAL, like the pins, is available at cost, can be mounted on vehicles of the Award-winning fleet. These decals are forceful advertisements of efficiency.

Here's what winning an M.E. Award could do for your fleet

The fleet that carries off an award in the M.E. Contest can't help but reap benefits. FLEET OWNER sees to that. Press releases are sent to newspapers in all communities where the winners operate. Winning fleets are contacted to make sure that all publicity outlets receive the news.

And, of course, the formal presentations of the flags and plaques shown above attract a lot of attention and serve to bolster morale. But what can you do to really put it across?

Many fleets have given open-house celebrations to bring home the fact that theirs is a prize-winning operation. These have been the source of a great deal of valuable publicity.

And this year, because several of last year's winners asked for them, FLEET OWNER is offering at cost two new symbols of excellence.

You'll soon be seeing decals like the one shown above (bottom, right) mounted on the backs of vehicles in prize-winning fleets. These can be ordered from FLEET OWNER and will carry the story of the award over all your routes.

Pins are being offered, too, to be worn by drivers and shop men. Here's a topnotch way to give your employees a new feeling of pride. These beautifully designed, gold lapel pins (top, right) offer management an excellent tool for cementing employee good-will.

Steel Wire Insert Solves a Clutch Repair Problem

The Connecticut Company, M.E. Award winner, cuts clutch overhaul costs and gets more mileage on clutches rebuilt with this method

ONE OF THE MAJOR PROBLEMS in clutch-overhaul work is rebuilding of the fulcrum edges on which the "fingers" pivot. "Originally, we built them up by welding and then machined them to finished dimensions," said C. W. Schecher, superintendent of equipment at The Connecticut Co., New Haven, Conn. "This method was expensive and we were troubled with distortion, so we tried the wire-insert method." This was started early in 1955 and it proved so successful that it has now been adopted as standard overhaul procedure.

"Several of the units now have over 120,000 miles on them and one has logged over 143,000 miles. "More than 90% of our clutches have been rebuilt this way and there hasn't been a single return for rebuild yet," said Schecher. In addition to increasing the mileage between overhauls, the time required for overhaul has been shaved to an average of 16 man-hours per clutch.

When the clutch assembly is removed from the vehicle for overhaul, mileage is recorded and the unit is disassembled and cleaned. After all parts have been carefully examined for wear, those subject to fatigue failure are given a magnetic particle test. Dimensions changed because of machining operations are carefully recorded on the work order. This data not only becomes a permanent record on the clutch, it also assures that the unit will be reassembled correctly.

The 1958 ME Contest Is Still Open

Plan now to enter. How will you benefit by it? First, you boost morale; workers have a competitive goal to shoot for. Second, you get a top publicity and selling point if you win. Third, you get increased shop efficiency as a result of shooting for a prize—win or lose. Prizes are giant pennants for the shop, handsome wall plaques for the office. For details on how to enter see p 64, and if you haven't received application forms, write to: M. E. Contest Editor, FLEET OWNER, 330 W. 42nd St.,

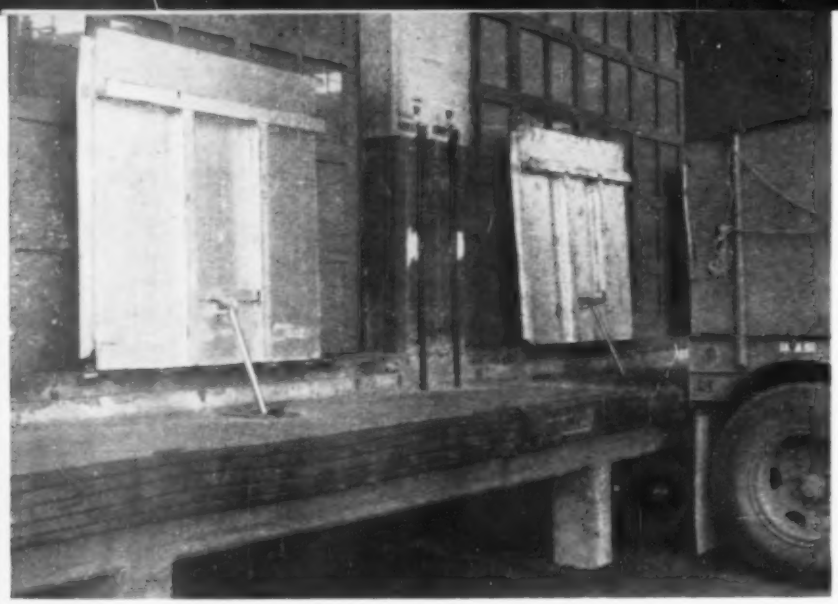
1. GROOVE IS CUT in the fulcrum ring, which is set up true on lathe face plate as shown here. This groove is cut with .090 radius form tool at exact location of the high point of the original edge.

4. WHEN READY FOR ASSEMBLY, clutch is first placed in this assembly fixture, and final shim dimensions are determined. This fixture has basically the same dimensions as flywheel on which the clutch will be used.

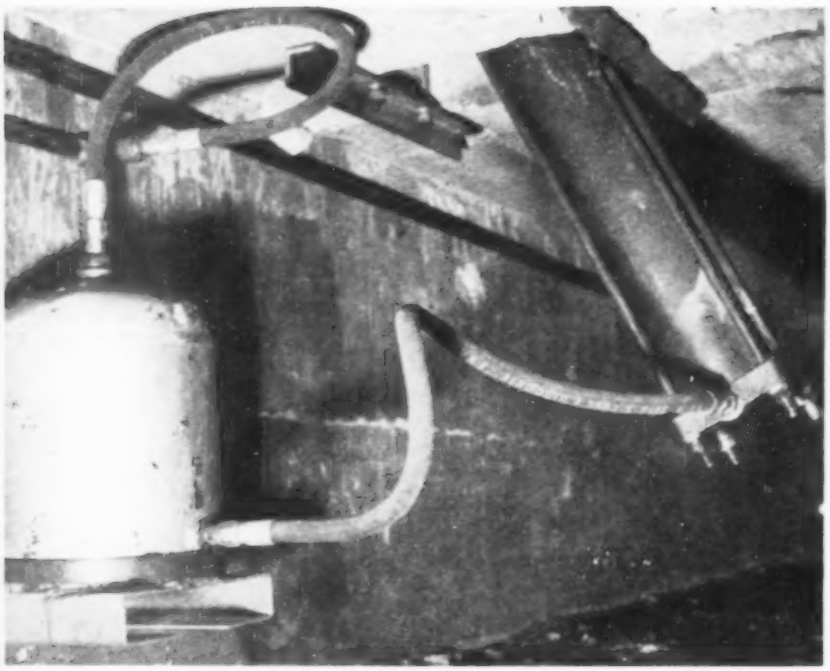
2. WIRE IS INSERTED in groove to form new fulcrum edge. Piano wire (.180" diameter) is used and fitted in the groove so that there is a slight clearance at the butting ends. Wire may be staked in place if desired.

3. COVER STUDS ARE RENEWED as necessary and stud shoulders are faced off with hollow mill. Dimension from friction face to shoulder is chosen so that standard shim washers will restore original dimension.

5. TORQUE WRENCH IS USED to get comparative reading of torque required to throw clutch from direct into hydraulic. Shown here is the shop-made device which bolts to assembly fixture for performing this operation. Torque required to move clutch in either direction should be the same. This can be equalized by changing shim relation (keeping same total amount of shims) between those at stud shoulder and those at cover bolting flange.



Shop-Built Dockboards . . .



. . . Use This Hydraulic Lift

These powered ramps are hinged to ledge of loading platform and span the four-foot bumper dock. Powered by air-over-oil system, the hydraulic cylinder pushes through hole cut in the bumper dock.

DESIGNED AND BUILT in the shops of Consolidated Freightways, these hinged power ramps:

- Permit use of heavier steel needed to support materials handling equipment.
- Reduce back and toe injuries frequently sustained in handling portable boards.
- Remove tripping hazards and increase working space on dock.

The bumper dock, of course, is an important factor in this installation. Extending out from the main platform like a shelf, it provides space underneath for the hydraulic equipment. The hydraulic cylinder pushes through a hole cut in the bumper dock—and cutting through the extended shelf portion is a comparatively simple job.

An air-over-oil system supplies the power for the 400-lb board —uses air at 120 psi. A single compressor is sufficient where no more than two boards are used at any one time.

Capacity of the reservoir is slightly greater than that of the cylinder. A good grade of anti-foaming, rust-inhibited fluid should be used. Viscosity-temperature relationship of oil varies with climate.

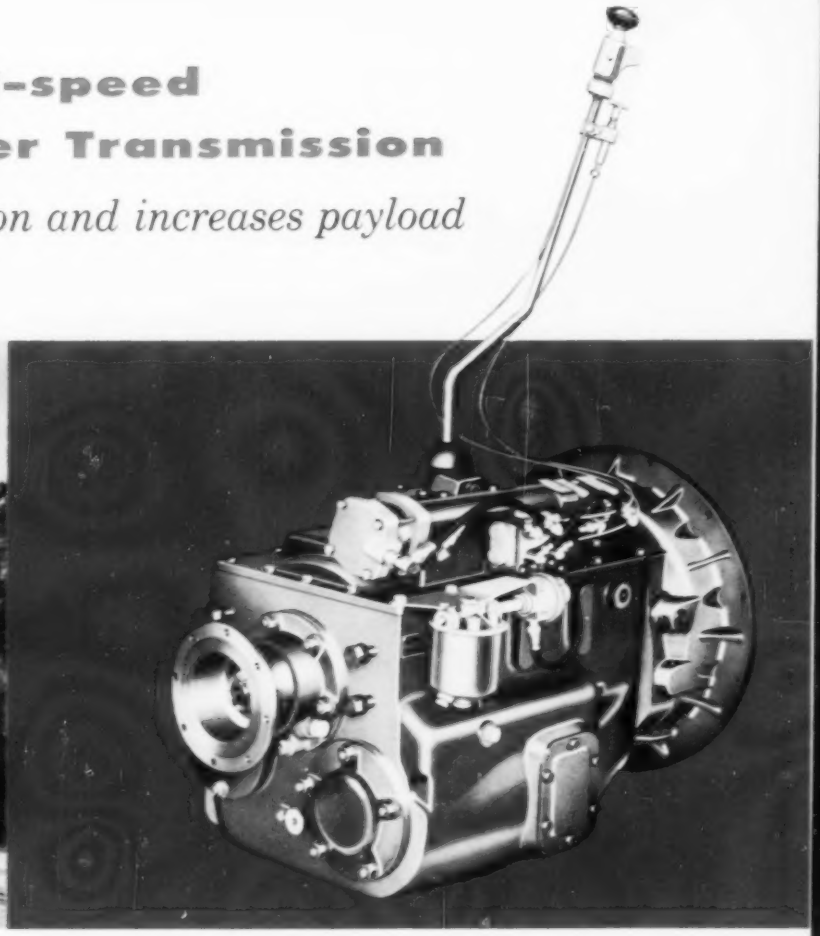
Under the bumper dock, a flexible hose permits the cylinder to swing freely. Control valve for each board is located on the nearest post. Where a "hot" pressure line is run to each valve, one is enough.

Predecessor to the powered ramp was a shop-built hinged ramp operated manually (see FO May '55, p 79). One main reason for changing to power was a switch from folding truck doors to regular hinged doors. This called for a wider bumper dock (increased by 1 ft) so truck doors could be opened without damage. In turn, the wider bumper dock called for a longer ramp—too heavy for manual handling.

CF now has 37 powered boards at Minneapolis, 12 at Portland.

New Spicer 12-speed Synchro-Master Transmission

lowers fuel consumption and increases payload



12" shorter and 200 pounds lighter than any other multiple-speed transmission of comparable capacity

Produces the close steps required to maintain engine speed at maximum RPM—Avoids engine lugging

No 2-speed axle required

No auxiliary transmission needed

Blocker-type synchronizer in all speeds, forward and reverse

All six low range ratios in reverse • Forced-feed lubrication • Screen for filtering oil • Standard 6-bolt S.A.E. power takeoff apertures on each side • Tower or remote control type • Replaceable bearing retainer inserts in all case bores.

This new transmission is unmatched in efficient power transmission for heavy duty vehicles. There has never been a transmission that has increased both driver and vehicle efficiency so much and at the same time requires so little initial investment and maintenance expense.

WRITE FOR BOOKLET

Dana engineers want to help you adapt this revolutionary new Spicer transmission to your heavy-duty truck requirements. Your letter, wire, or telephone call will receive immediate attention.

DANA CORPORATION • Toledo 1, Ohio

DANA PRODUCTS Serve Many Fields:

AUTOMOTIVE: Transmissions, Universal Joints, Propeller Shafts, Axles, Powr-Lok Differentials, Torque Converters, Gear Boxes, Power Take-Offs, Power Take-Off Joints, Clutches, Frames, Forgings, Stampings.

INDUSTRIAL VEHICLES AND EQUIPMENT: Transmissions, Universal Joints, Propeller Shafts, Axles, Gear Boxes, Clutches, Forgings, Stampings.

AVIATION: Universal Joints, Propeller Shafts, Axles, Gears, Forgings, Stampings.

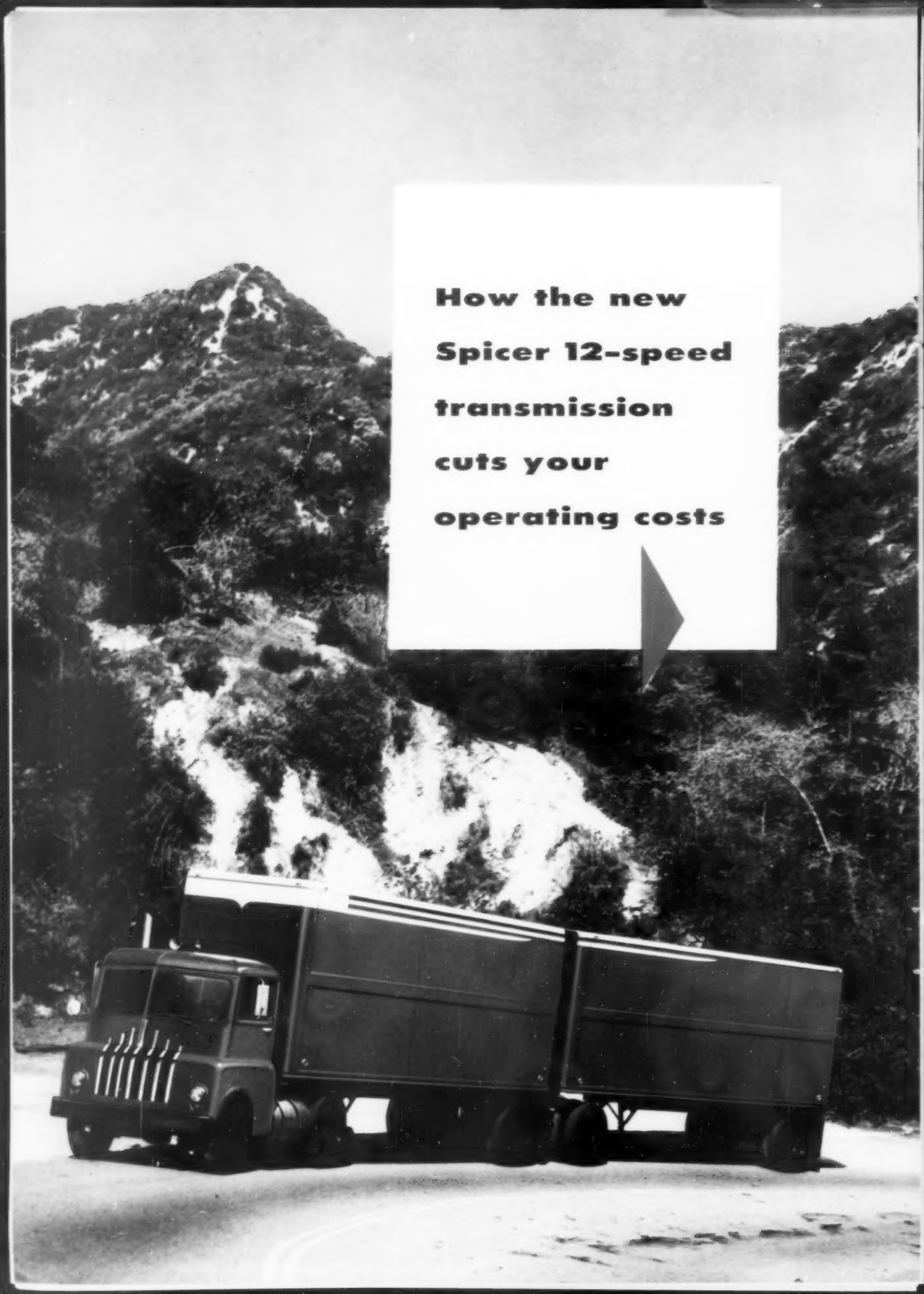
RAILROAD: Transmissions, Universal Joints, Propeller Shafts, Generator Drives, Rail Car Drives, Pressed Steel Parts, Traction Motor Drives, Forgings, Stampings.

AGRICULTURE: Universal Joints, Propeller Shafts, Axles, Power Take-Offs, Power Take-Off Joints, Clutches, Forgings, Stampings.

MARINE: Universal Joints, Propeller Shafts, Gear Boxes, Forgings, Stampings.

Many of these products manufactured in Canada by Hayes Steel Products Limited, Merritton, Ontario

DANA Spicer


How the new
Spicer 12-speed
transmission
cuts your
operating costs

your luck can **fade...**

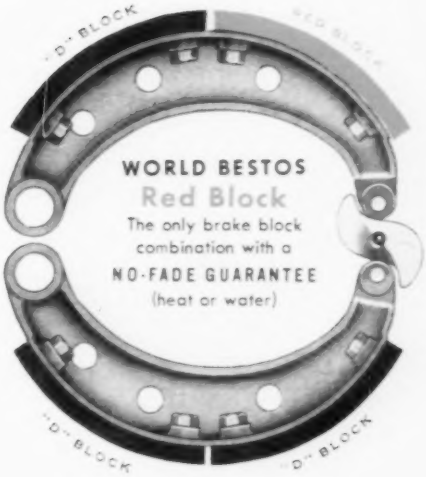
RED BLOCK CAN'T!

In spite of the tremendous temperatures generated by high speed stops and sustained downhill braking, WORLD BESTOS *Red Block will not fade.*

Here's why

The special Red Block *high-friction formula* develops full friction at temperatures as high as 1300°. It removes glaze and water film from drums and maintains a perfect braking surface. As a result, less braking pressure is required and braking time is shortened. You get more miles between relines, less drum wear and *no fade due to heat or water.*

Why gamble with costly equipment and cargos when you can have Red Block safety and dependability? Especially when Red Block more than pays for itself in mileage and lower maintenance costs! Prove it for yourself—Call your WORLD BESTOS Distributor or write direct to WORLD BESTOS, New Castle, Indiana for full details and prices.

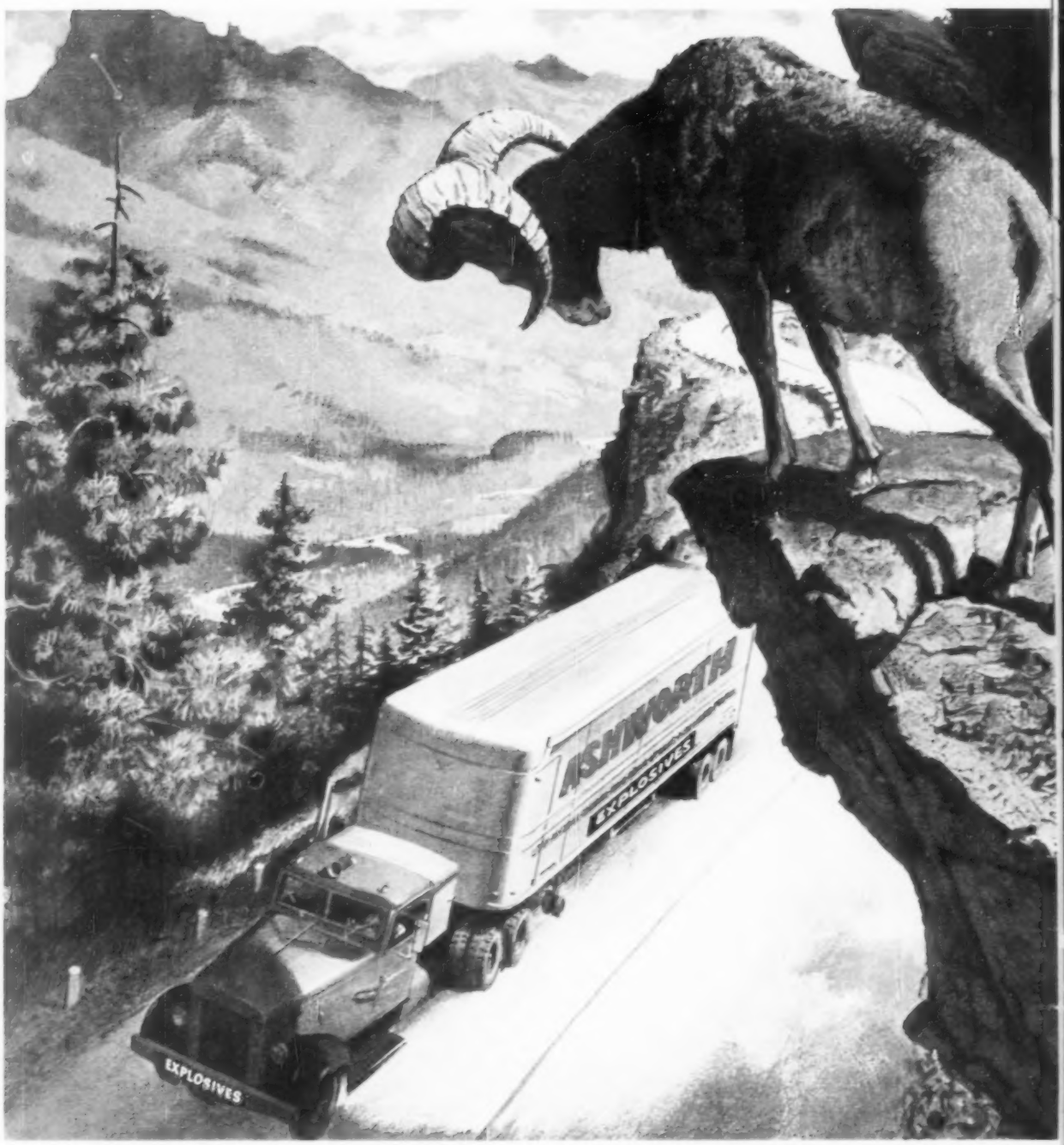


You Can't Beat WORLD BESTOS Red Block Combination for Safety!

No matter what the load or road conditions, Red Block Combination will not fade. It can't fade because it's specially engineered to overcome high temperatures associated with heavy-duty fleet service.

WORLD BESTOS NEW CASTLE INDIANA

"With us, a sideslip could

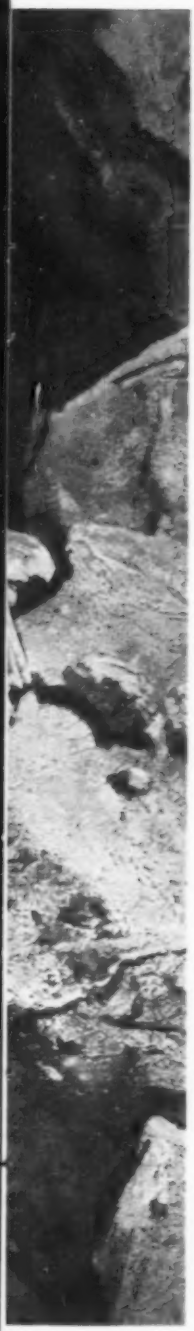


Buy and Specify Tubeless or Tube-Type

GOODYEAR

MORE TONS ARE HAULED ON

be playing with dynamite!



But we haven't had sideslip or jackknife troubles since switching to HI-MILER CROSS-RIB."

How Ashworth Transfer Co., Salt Lake City, Utah, licked jackknife problems—gained longer tread-life:

"Our 280 vehicles haul practically anything. Even a 167-ton barge for atomic submarines is all in our day's work.

"High explosives, too—we specialize in them," continues Vice President Glen Ashworth. "And with such cargoes over our tough mountain runs, a bad sideslip or jackknife could make headlines the driver would never read!"

"But we haven't had a bad sideslip or any jackknife since we switched to Cross-Rib," observes Ashworth Yard Manager Everett Taylor. "Not even on the Continental Divide—where a tire failure would be disastrous.

"And that's not all. Uncle Sam is fussy about explosives hauling—makes rigorous depot checks. In the 2 years before Cross-Rib, we had 50 to 60 loads rejected because of tire wear, tread cracks, bruises and the like. *But in our year with Cross-Rib, not a load has been turned down because of tires!*

"That, alone, makes the Cross-Rib worth while—and we're way ahead in other ways, too:

"*Our particular operation hasn't had a Cross-Rib blowout, bruise-break or tread split*—even on runs more off-road than on!

"We're hanging up tread-mileage records, too. Cross-Ribs are running 100,000 miles and more—and plenty of tread still on them! On our operation, that was formerly unheard of.

"No matter how you look at it—traction, safety, long tread wear or low cost-per-mile—I say Cross-Rib HAS it!"

Ashworth Transfer Company has pioneered intermountain transportation since 1913. It serves Utah, Idaho, Montana, Colorado, Wyoming, Arizona and New Mexico—and connects with lines serving all other points. For names of other good operations gone Cross-Rib, contact your Goodyear dealer or Goodyear, Truck Tire Dept., Akron 16, Ohio.

Watch "Goodyear Theater" on TV—every other Monday, 9:30 P.M., E.S.T.

HI-MILER CROSS-RIB
EXTRA RUBBER *plus* TRIPLE-TOUGH

3-T
NYLON CORD

TEMPERED LIKE STEEL! Like steel, tire cord must be tempered to be tough. Goodyear's exclusive 3-T process, involving Tension, Temperature and Time, triple-tempers cord to make it TRIPLE-TOUGH—to give you longer tire life, lower cost-per-mile!

Hi-Miler-T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

TRUCK TIRES

GOODYEAR TRUCK TIRES THAN ON ANY OTHER KIND

GOODYEAR TIRES

Look for this nearby Goodyear dealer sign for better tire values—better tire care.

GRAVITY CONVEYOR brings cartons from packing to shipping area, where they are loaded onto pallets to be moved by feeder conveyors to truck loading bays. Each feeder accumulates a truckload of pallets.

How 12 Dockmen Do Work of 19

PALLETIZED LOADS on gravity conveyors, plus roller-bed trailers, have resulted in an estimated savings of $25,000 a year in plant-to-warehouse shipments at American Seating Co., Grand Rapids, Mich. A large chunk of the $25,000 is man-hour savings—the difference between twelve and nineteen dock workers previously employed.

But it's the time savings that are considered most crucial. More than half of the company's production is shipped in June, July, August and September, when school furniture demands are greatest. The rest of the time is spent stocking warehouses. Formerly the loads were assembled by industrial tractor-trains, and shipments were made by rail. Traffic confusion on the dock slowed up the loading—and sometimes the rail transfer took as long as 36 hours. Now, with unitized loads handled by conveyor, and transfer by truck, the entire operation takes less than an hour.

Cartoned furniture travels by gravity conveyor from packaging to the shipping area. Pallets are lined up parallel with this conveyor, on a series of eleven loading or collecting stations with roller beds. (See pictures at top.) As cartons are unitized on pallets, they are moved sidewise onto one of four accumulator lines of inclined gravity conveyors that lead to the truck loading bays. Each 36-ft section accumulates a truck-load of pallets, acts as a live-storage conveyor.

A transfer cart, which travels on tracks parallel with the line of collecting stations, is used for moving pallet loads onto the four accumulator conveyors. When a pallet is loaded, the transfer cart is spotted in front of it. The pallet is guided onto the car, which is then spotted before one of the inclined accumulator conveyors.

Roller conveyors in the trailer floor are lined up exactly with the accumulator conveyors. The truck's bed is brought flush to the dock edge by a specially designed leveler (a steel plate which en-

TRANSFER CART ON TRACKS (also see lower left corner of first photo) is spotted in front of loaded pallet, and pallet is pushed across its roller bed onto accumulator line, which acts as a live-storage unit.

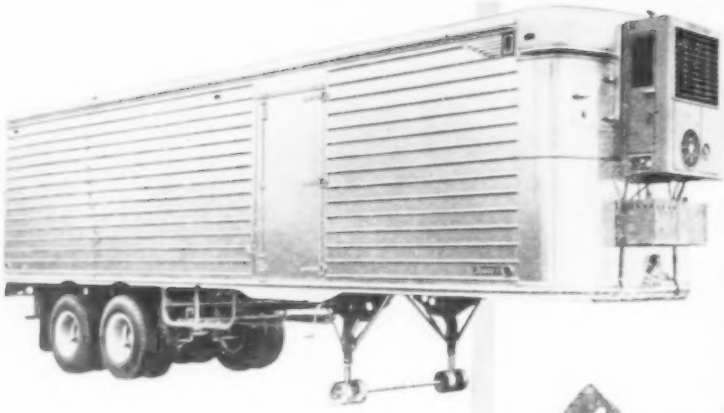
With This Handling System

gages a fixture under the tailgate). When spotted, the trailer is inclined at the same slope as the dock conveyor, and once the load is started, gravity does the rest of the work.

The pallets are laminated plywood sheets, $^3/_4$ in. thick and same width as truck bed. They are guided across a short section of ball conveyor and into the truck. Reason for the ball conveyor: Pallets can be turned and adjusted to roll smoothly into the truck. Between each ball conveyor are short roller sections for sidewise movement (see photo at right). These are used for making up special loads and handling returning empty pallets.

Similar equipment at the warehouse speeds unloading. Main difference is that four-wheel trailers with roller beds are used to remove pallet loads from accumulator conveyors. The trailers are made up into trains which are towed away into the warehouse—and meantime the truck is on its way back to the plant for another load.

ROLLER-BED IN TRAILER lines up with inclined feeder conveyor, completes the conveyorized movement.



For Fresh or Frozen Perishables, Dorsey "assembly-line insulation" means

Safe-cold PROTECTION

DORSEY REFRIGERATOR VAN— Weight 10,800 lbs.—for zero or below, or any temperature you want. Every special feature you could ask for is available, and **at lower cost, too:** economy is achieved by building-in, **during manufacture,** such items as custom insulation, plastic or aluminum lining, air ducts, meat rails and other optional items.

Dorsey offers your widest choice of insulated trailer models—Refrigerator and Produce Vans as well as the sensational new Reeferator, which controls not only temperature, but humidity as well. And they all have an important feature in common: **the way they're insulated.** Operating records prove that by applying insulation on the assembly line instead of adding it to already-built trailers, a more thorough and efficient job is achieved.

This means **you may need less insulation,** or less chilling power, than you think . . . and in any event it means **an extra margin of safety** for delivery of cargo in top condition.

Whatever you haul, wherever your routes may be, it will pay you to let your Dorsey Distributor help you with the specifications for trailers built and equipped just the way you need them.

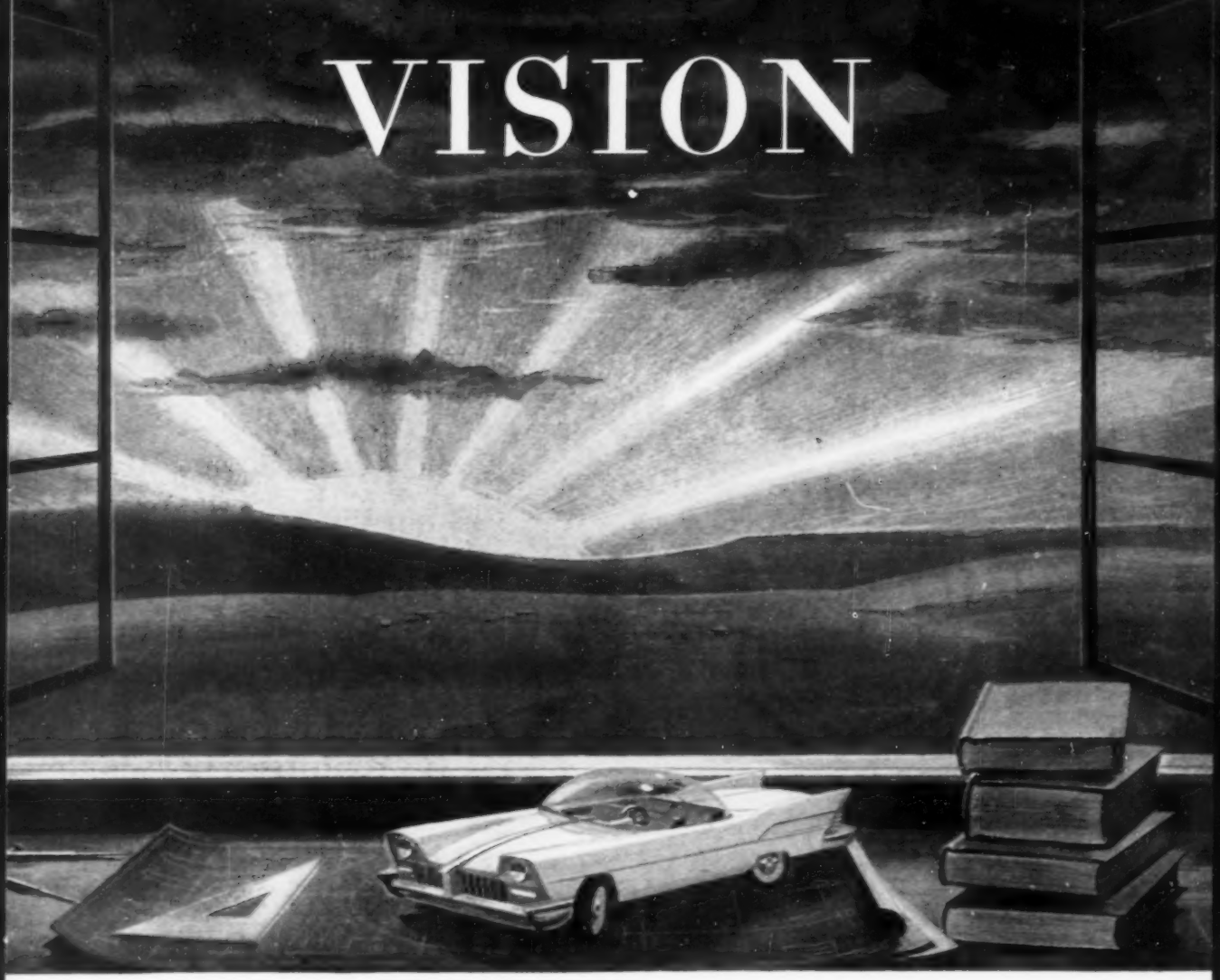
The exact weight of every Dorsey is stamped on this weight tag . . .

THE VERSATILE NEW REEFERATOR— combination ice and mechanically-refrigerated trailer that protects fresh produce just as efficiently as it does frozen merchandise! Its versatility enables it to haul the **most profitable payloads** both ways. Example: The owner of this unit specializes in hauling grapes and lettuce one way and frozen seafood the other.

Get the full story from your Dorsey Distributor. He's a trailer specialist . . . an independent businessman with a factory-trained organization.

Write or wire for literature on insulated trailers—

DORSEY TRAILERS ELBA, ALABAMA



LOOKING TO THE FUTURE—PRODUCING FOR TODAY!

Progress has been the keynote of the automotive industry. Today's achievements are but challenges for the accomplishments of tomorrow.

Over the years Bendix Products Division has contributed significantly to automotive progress. From four wheel brakes to power braking and power steering, Bendix has pioneered and developed many of the industry's most notable advancements.

And today Bendix Products Division is planning new and better products for the cars and trucks of tomorrow.

That's why the industry looks to Bendix* as a source of new ideas, as well as a volume manufacturer of automotive components.

*REG. U.S. PAT. OFF.

TYPICAL EXAMPLES

Bendix Power Brakes

Bendix Power Steering

BRAKES • POWER STEERING • POWER BRAKING
CONSTANT VELOCITY UNIVERSAL JOINTS • HYDRAULIC REMOTE CONTROLS

Bendix PRODUCTS DIVISION South Bend, IND.

Bendix
AVIATION CORPORATION

"One year's experience proved the economy of using Philgas* for our fleet!"

—ROY HUSER, President,
Transport Motor Express, Inc.,
Fort Wayne, Indiana

ALONZO HATHAWAY,
Maintenance Superintendent

"We're saving money and getting better performance with our Philgas-powered equipment!"

● Roy Huser says: "I told the boys we would give Philgas a one year trial. Well, we're certainly happy with the results, and we're converting more of our tractors to Philgas as quickly as we can!"

Mr. Huser, president of Transport Motor Express, Inc., started as a truck broker in the mid-1930's, and has piloted TME to an eminent position in trucking during the past 12 years. He knows the value of saving a maintenance dollar.

As Mr. Hathaway, TME's maintenance superintendent, put it: "With our expansion plans, plus the size of our current fleet, we needed to give our maintenance and operating expense a close look. We've tried Philgas for a year on 20 of our refrigerator units. Results show: longer service-free operation; easier starting; longer battery life; extended plug life, and a saving in fuel cost."

Fleet owners all over the country are discovering the economy and better performance of Philgas. See your nearest Philgas Distributor.

*Philgas is the Phillips Petroleum Company trademark for its high quality LP-Gas (propane, butane).

Phillips 66 Philgas
THE ALL-PURPOSE FUEL

PHILLIPS PETROLEUM COMPANY
Sales Department, Bartlesville, Oklahoma

Sales Offices:

AMARILLO, TEX.—First Nat'l Bank Bldg.
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CHICAGO, ILL.—7 South Dearborn St.
DENVER, COLO.—1375 Kearney St.
DES MOINES, IOWA—6th Floor, Hubbell Bldg.
HOUSTON, TEX.—6910 Fannin St.
INDIANAPOLIS, IND.—1112 N. Pennsylvania St.
KANSAS CITY, MO.—500 West 39th St.
MINNEAPOLIS, MINN.—212 Sixth St. South
OMAHA, NEB.—6th Floor, WOW Bldg.
RALEIGH, N. C.—401 Oberlin Road
SALT LAKE CITY, UTAH—68 South Main
ST. LOUIS, MO.—4251 Lindell Blvd.
SPOKANE, WASH.—521 East Sprague
TAMPA, FLA.—3737 Neptune Street
TULSA, OKLA.—1708 Utica Square
WICHITA, KAN.—501 KFH Bldg.

Illustrated above: Truck fleet equipped with Daybrook Power Gates. Available in load capacities of 600, 1100, 2000, 3000 and 4000 pounds. Also, Series DA with 180° swing-platform for ground level and platform loading—unloading.

For Daybrook Truck Equipment literature check item of interest below, attach to your letterhead, sign your name and mail.

- ☐ Daybrook Speedlift POWER GATE
- ☐ Daybrook Speedlift Dump Bodies
- ☐ Daybrook Speedlift Hoists
- ☐ Daybrook Speedlift POWER LOADER

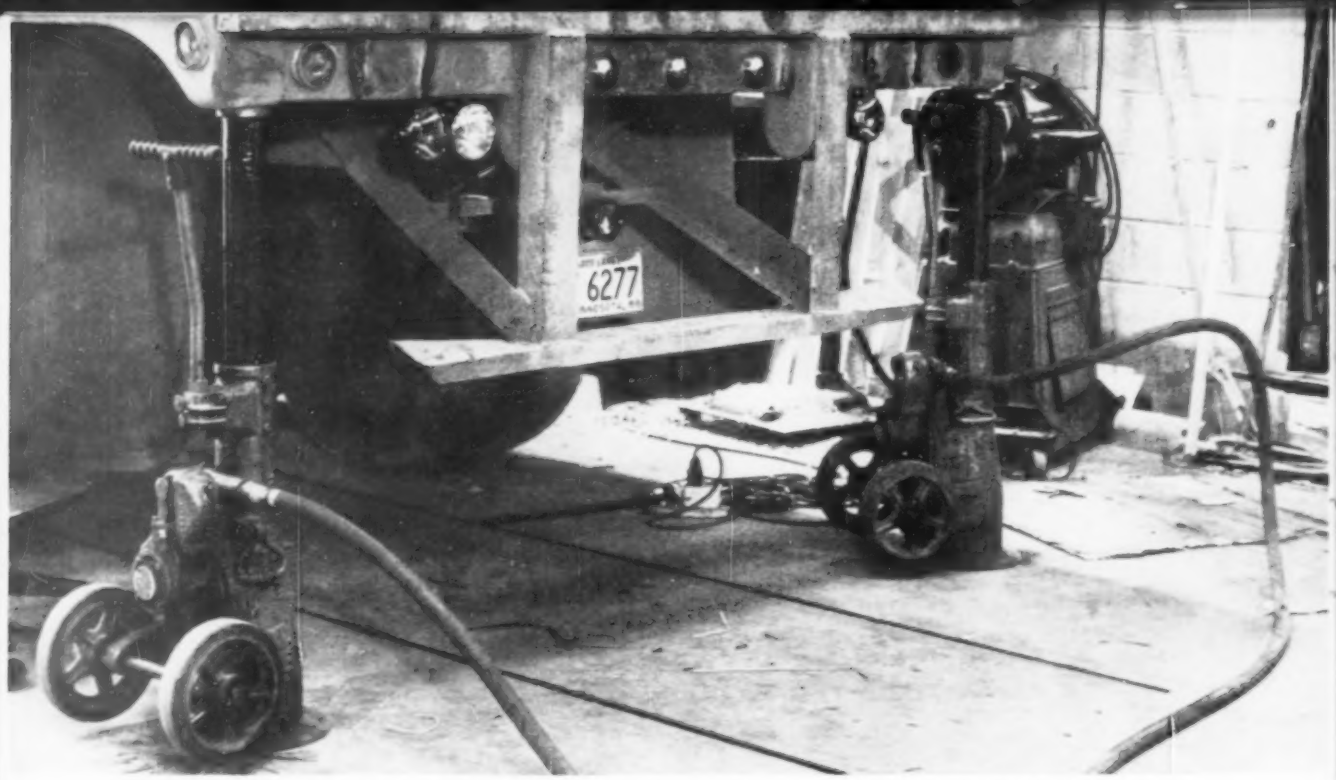
FO-1

Loading and Unloading are **Big Factors** in Truck Transportation

Daybrook Power Gate® equipped trucks solve a materials handling problem (loading and unloading) for the fleet operator, in addition to making a point-to-point delivery. Therefore *truck usefulness is doubled!* The delivery cycle is completely mechanized. One man with the use of modern Daybrook truck equipment completes deliveries quicker—safer.

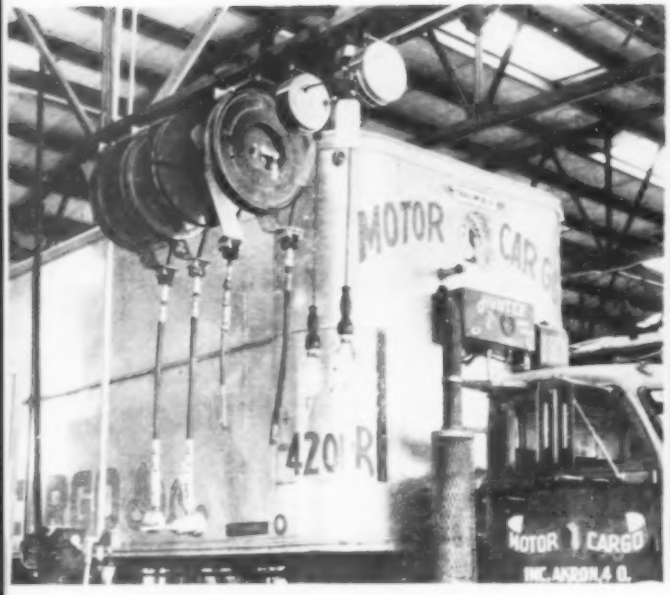
DAYBROOK Speedlift® TRUCK EQUIPMENT

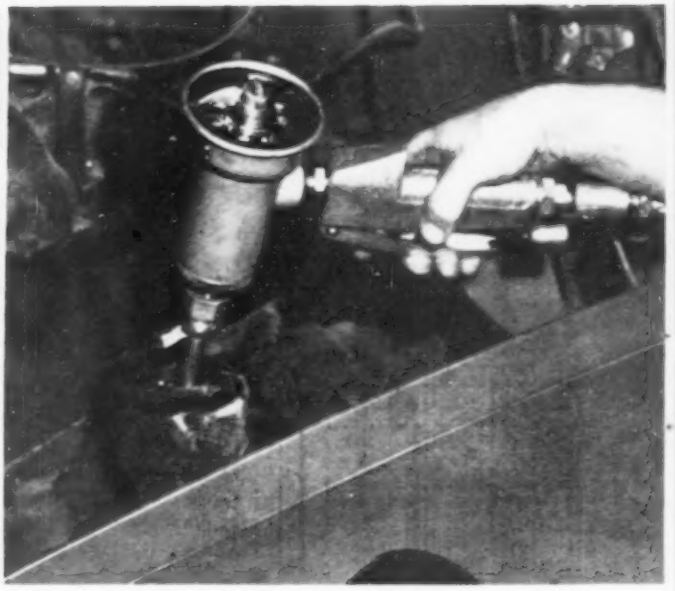
DAYBROOK HYDRAULIC DIVISION • *YOUNG SPRING & WIRE CORPORATION* • *BOWLING GREEN, OHIO*



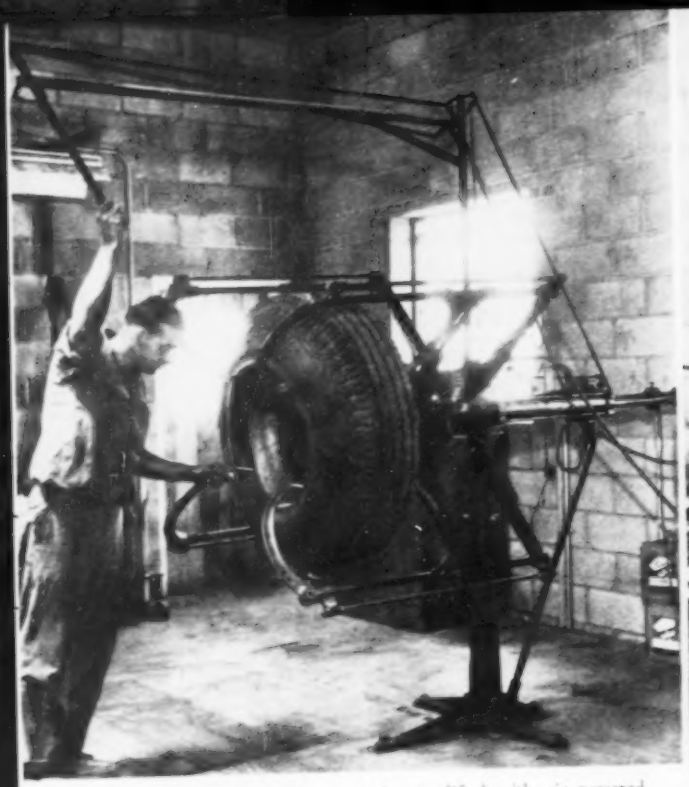
AIR POWERED JACKS can handle heavy loads safely and easily. Here, two heavy-duty air powered jacks are used to support after-end of trailer. These are designed so that they can be rolled to the job. This is a handy feature in shops where a variety of jobs require jacking, but where lifts or pits are not feasible.

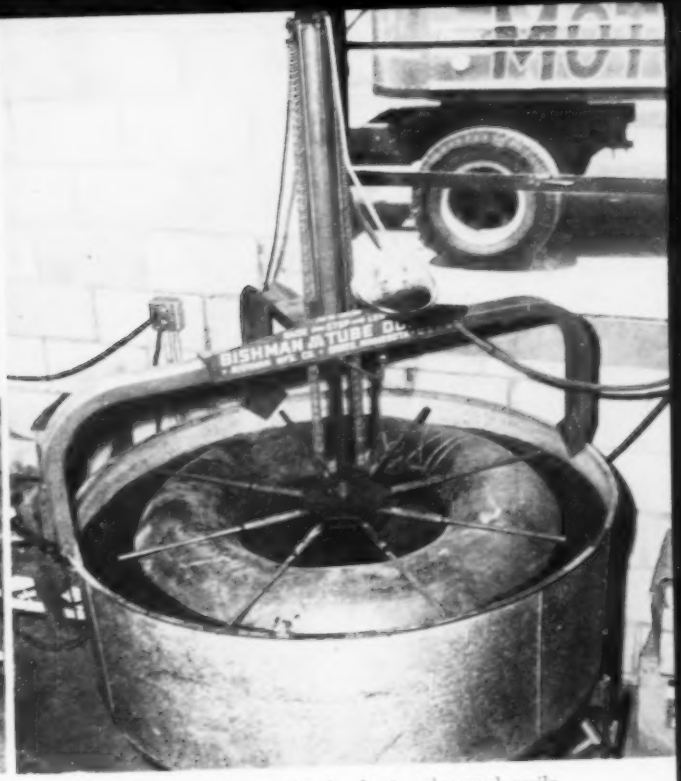
Compressed Air—Is It Working





OVERHEAD REELS speed up lubrication work. Lubricants may be stored at remote location, and air-powered pumps used to deliver oil to the reel. Oil meter shown here gages the exact amount needed, minimizes spillage. For a clean and efficient pit operation, air pumps can also deliver grease to metered outlets.





TIRE HANDLING is greatly simplified with air powered equipment. Interior inspection, for instance, is easy with this type spreader. "Dunking by air" is another time-saver in the tire shop. Here, inflated tube is submerged easily and the operator can control the operation as he watches for leaks.

Full-Time for You in Your Shop?

IMPACT WRENCHES and other air-operated tools make short work of jobs like this. As shown here, lug nuts may be run on or off quickly and easily with air wrench.

CHANCES ARE, you already have compressed air in use in your shop. Question is, have you given much thought to just how versatile compressed air can be? Here's a shop in which it plays a part in almost every phase of fleet maintenance. This story is based on material obtained by the Compressed Air and Gas Institute from R. Klein and J. Boynton, superintendents of equipment at Motor Cargo, Inc., West Richfield, Ohio.

For flexibility, two compressors are used. One is a 5-horsepower, V-type, two-stage air-cooled unit, and the other a 10-horsepower (twin five) job. Two air-storage tanks feed a distribution system which consists of more than 1200 feet of main lines, 1100 feet of branch lines, and 2200 feet of hose at the various outlets, for complete coverage of the 94 ft x 221 ft shop. Standardized "quick connectors" are used at the outlets.

Once you decide to use compressed air for power tools in your shop, next step is to select the proper compressor. Information and examples on following pages show how.

Average Free-Air Consumption in CFM

PSI Range	Type of Device	CFM
70-100	*Body polisher	2.00
70-100	*Body sander	5.00
70-100	Brake tester	3.50
70-100	Dusting gun	2.50
70-100	*Air hammer	16.50
70-100	*Fender hammer	8.75
70-100	Hoist (1-ton)	1.00
70-100	Radiator test	1.00
70-100	Sparkplug cleaner	5.00
70-100	*Paint gun (production)	8.50
70-100	*Paint gun (touch-up)	2.25
70-100	*Paint gun (undercoat)	19.00
70-100	Spring oiler	3.75
70-100	Trans. & differential flusher	3.00
120-150	Grease gun (high-pressure)	3.00
120-150	Rim stripper	6.00
120-150	Tire changer	1.00
120-150	Tire inflator	1.50
120-150	Tire spreader	1.00
145-175	**Hydraulic lift	5.25

*Regard as continuous-duty devices.
**For 8000-lb. cap.—Add .65 cfm for each add'l 1000 lb.

1. COMPILE A LIST of all your air-operated equipment, using Table No. 1. Keep "continuous duty" devices separate from "average-use" items. Then . . .

Example:

Average Use-Items

1 Hydraulic lift	@ 5.25 cfm	@ 145-175 psi
1 Grease gun	@ 3.00 cfm	@ 120-150 psi
1 Spring oiler	@ 3.75 cfm	@ 70-100 psi
Total	**12.00 cfm**	

Continuous-Duty Items

1 Paint gun (prod.)	@ 8.50 cfm	@ 70-100 psi
1 Body polisher	@ 2.00 cfm	@ 70-100 psi
Total	**10.50 cfm**	

Answer: Table No. 2, under "Average-Use" column, shows that for 12.0 cfm at the 145-175 psi range, a 1½-hp, 2-stage compressor is required.
Under "Continuous-Duty" column, opposite 70-100 psi range, it will be seen that a 3-hp, 2-stage unit will be required to furnish 10.5 cfm.

Note: If only one compressor is to be used, a total of 4½-hp would be required at 145-175 psi. This would call for a 5-hp, 2-stage unit.

2. CALCULATE TOTAL CFM to be supplied by the compressor. When average-use and continuous-duty items are used, total cfm will be their sum. Now, you can . . .

Three Steps to Help You Pick

WHETHER YOU'RE thinking about a new installation or merely expanding your existing compressed-air facilities, the job of choosing a compressor boils down to three basic steps shown on the charts above: (1) list all devices which are to be operated by air; (2) calculate the total air requirements in cfm; and, (3) use the compressor-selection table to determine what size unit will be required at the particular operating range. This range is the difference between the cut-in and cut-out pressures for the compressor.

While the figures used here are more or less standard, minor changes may be made to suit a certain operating condition. If you make changes, however, check the tables to make sure you're not overloading the drive unit.

And, remember, the compressor must maintain a minimum pressure at least equal to the highest rated air-operated device in the shop. Air at reduced pressure for other devices can be made available with regulating valves.

The "Average-Use" cfm figures, in the compressor selector table shown, include a factor to take into account intermittent operation of tools likely to be in use simultaneously in the average shop. Also, these free-air consumption figures are the actual cfm for all the tools—they do not represent compressor capacity. In the case of the continuous-duty figures, no factor for intermittent operation has been used. These figures are also the free-air output of the compressor. Complete tables and data are available from the Compressed Air and Gas Institute, 1400 Terminal Tower, Cleveland, Ohio.

Keep in mind also, that each cubic foot of air

Compressor Selector Table

Psi Range	Average-Use Cfm Free Air	HP Required 1-stage	HP Required 2-stage	Cont. Duty Cfm Free Air
70-100	14.8- 22.4		1.5	4.3- 6.4
	22.5- 30.4		2.0	6.5- 8.7
	30.5- 46.2		3.0	8.8-13.2
	46.3- 60.0		5.0	13.3-20.0
	60.1- 73.0		7.5	20.1-29.2
	73.1-100.0		10.0	29.3-40.0
	100.1-117.5		15.0	40.1-47.0
120-150	Up to- 3.8	.50		Up to- 1.1
	3.9- 7.3	.75		1.2- 2.1
	7.4- 10.1	1.00		2.2- 2.9
	Up to- 12.6		1.0	Up to- 3.6
	12.7- 20.0		1.5	3.7- 5.7
	20.1- 25.9		2.0	5.8- 7.4
	26.0- 39.2		3.0	7.5-11.2
	39.3- 51.9		5.0	11.3-17.3
	52.0- 67.5		7.5	17.4-27.0
	67.6- 92.5		10.0	27.1-37.0
	92.6-116.0		15.0	37.1-46.5
145-175	Up to- 11.9		1.0	Up to- 3.4
	12.0- 18.5		1.5	3.5- 5.3
	18.6- 24.2		2.0	5.4- 6.9
	24.3- 36.4		3.0	7.0-10.4

3. SELECT COMPRESSOR, using Table No. 2. Note, that for same cfm and operating pressure, continuous-duty operation calls for much greater horsepower.

Your Compressor

pumped per minute at a given pressure represents just so much work done. For this reason, only just so much air can be delivered for each hp rating of the driving unit. With a given compressor, greater volume can be had at a lower pressure, by operating at a higher speed. Compressors are manufactured to operate over a range of speeds so they may be matched to the particular job.

When planning an installation, think carefully about over-all efficiency. If you buy a compressor from a reliable manufacturer, you get a well designed, efficient piece of machinery. But it will do you no good if your distribution system is not properly installed and maintained.

The object is to provide air in sufficient quantities and at the correct pressures *at the point where it will be used.*

Oversize piping is usually a wise investment. The added cost is relatively small because the initial expense is primarily for labor. Larger pipe results in a more efficient distribution system and allows for future expansion.

Although it has been common practice to add a percentage to the calculated compressor capacity to compensate for leaks, every attempt should be made to keep leaks at a minimum. Remember, compressed air costs money. Just because it's harmless, there is no more justification for waste through leakage than for tolerating losses in an electrical, refrigeration or fuel system.

As far as costs are concerned, the initial investment includes two basic items, equipment cost and installation cost. Equipment cost includes the compressor, motor, starter, after-cooler (if used), receiver, and foundation bolts.

Installation cost includes the foundation for the compressor, rigging, erecting, piping and wiring. Because these vary so widely for various installations, it would be wise to consult your local contractor or the compressor manufacturer when you are ready for your installation.

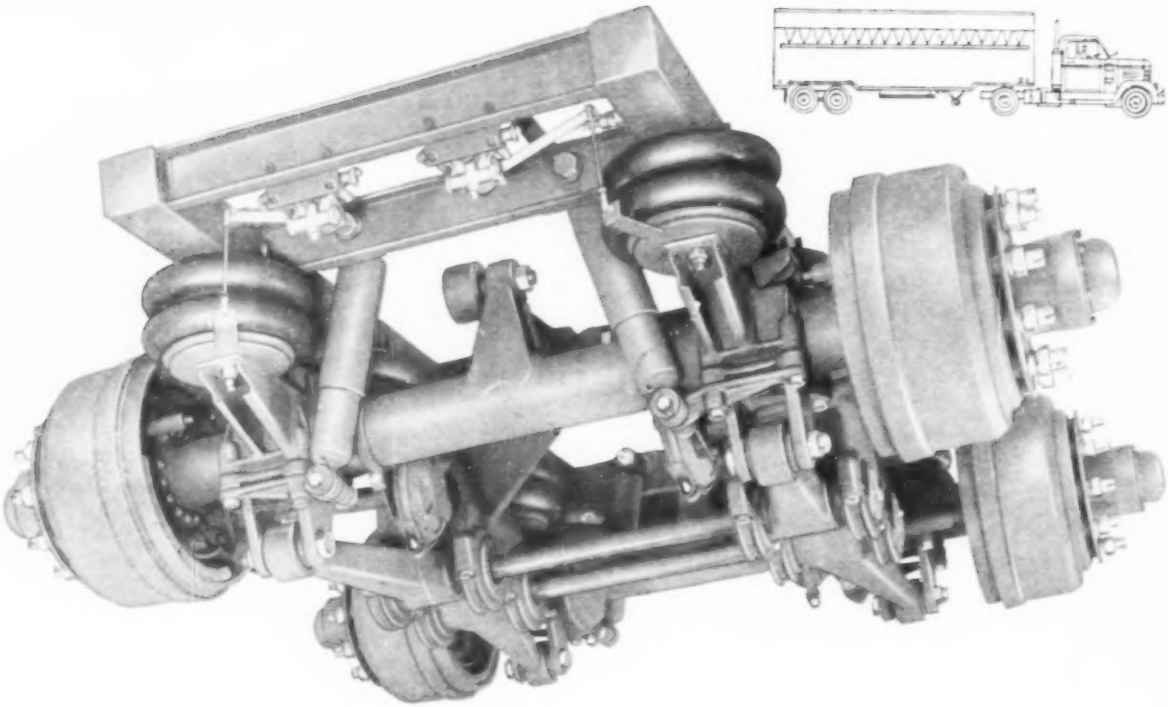
Compressor ratings can be confusing unless you understand certain basic terms. In the past, compressors were rated on the basis of their piston displacement. Today, they are rated on the basis of actual air delivered by the unit, called "free air." This is the term used to express actual delivery on the basis of cubic feet of free air per minute and it is a true rating of the capacity of a compressor.

Piston displacement is simply the physical volume swept by the piston which is the length of the stroke multiplied by the cross-sectional area of the cylinder.

Volumetric efficiency is the ratio of the actual free-air delivery to the piston displacement. When it is said that a compressor has a volumetric efficiency 20% higher than another unit of the same piston displacement, it means it will actually deliver 20% more air.

Two-stage compressors divide the work of compressing the air into two steps or stages. Air, at atmospheric pressure enters the first stage and is compressed to a higher pressure. Then it is led through suitable piping to the second stage where it is compressed to a final pressure.

Intercoolers are sometimes used to dissipate heat of compression between stages. Two-stage compressors are generally more efficient than single-stage units. When compressing air to pressures over 100 lb. for instance, they are usually at least 20% more efficient than single-stage units of the same size.



TONS OF HIGHWAY CARGO FLOAT ON AIR

with the new Clark Air Suspension System for semi-trailers

Damage to fragile goods—to perishable cargo—to empty running vehicles can be *minimized* by the new Clark Air Suspension unit. This unique undercarriage, suitable for installation on new or in-use semis, allows both trailers and cargo literally to "float on air"!

Smooth, soft ride . . .

Doughnut-shaped "air-springs" carry full weight of trailer and cargo, absorb road shock, "flatten" even *rough* highways to a surprising degree. Ride actually approaches passenger-car softness!

High stability . . .

Lateral roll and sway are minimized by ingenious system of pivoted torque arms and torsion bars which take full force of side loads and absorb torsion resulting from brake torque.

Automatic load leveling . . .

When loading or unloading trailer, air reservoirs automatically adjust to support trailer bed at normal running height.

Versatile package unit . . .

All Clark Air Suspension assemblies come as complete packages, ready for installation. Parts are interchangeable between single and tandem units. Either suspension assembly can be used on new trailers or those already in operation.

Lower maintenance costs . . .

Because compressed air does the flexing and rubber mountings are employed, no lubrication is needed. Tanker operators will find that tank splitting and cracking of returning "empties" is minimized. Operators of other types of trailers will also find their trailers lasting longer and requiring less maintenance.

Weight advantages . . .

Trailer manufacturers using the Clark Air Suspension System can lighten frame and body construction, increase longevity—without sacrificing load-carrying ability.

Why not investigate . . .

Whether you manufacture highway semi-trailers or operate them . . . whether you haul eggs or engines . . . whether one trailer or a hundred are involved . . . it will pay you to get the facts on Clark's new Air Suspended Trailer Axles. Ask us for detailed, illustrated Brochure No. AS-500

CLARK EQUIPMENT COMPANY
Buchanan 27, Michigan

CLARK® EQUIPMENT

2 BOWER EXCLUSIVES

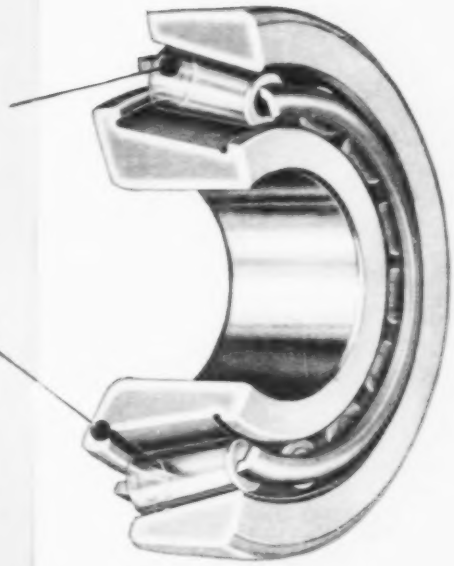
give you

2 BIG ADVANTAGES

1 NO "RUN-IN" . . . With Bower exclusive Spher-O-Honed design, roller heads are *ground* to operating contour that other bearings must acquire through run-in. This means they hold adjustment, give smoother performance over a longer life.

2 CUTS WEAR . . . The Bower exclusive higher flange design provides large, two-zone contact for roller heads . . . reduces pressure on individual rollers, improves roller alignment, cuts down wear and resultant end-play. Again this means longer life.

Bower roller bearings are widely used as original equipment. You'll profit by using them when replacements become necessary. Insist on the bearing in the Bower package. They're readily available from most bearing distributors.



BOWER
roller bearings

FEDERAL-MOGUL SERVICE
DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC.

SAVE ON LABOR-TIME and EXTRA MANPOWER

YOU HAVE CHOICE OF 2 SIZES . . . 3 MODELS
(for TRUCK and BUS wheels)

- **2,500 lb. capacity** (hydraulic lift)
- **1,200 lb. capacity** (hydraulic lift)
- **1,200 lb. capacity** (mechanical lift)

WEAVER WHEEL DOLLY

enables serviceman — single handed — to remove, lift, transport, and replace heavy wheels

YOU'LL LIKE the time and labor-saving advantages of a Weaver Wheel Dolly . . . It lifts wheel and tire assemblies from floor or spindle—and handles the largest truck and bus duals.

A serviceman—working without a helper—can quickly and easily remove and replace even the heaviest of jobs that fall within the capacity designated.

On Model WR-31 (shown) a built-in hydraulic jack simplifies all raising and lowering. Lifting arms are of roller type to permit revolving of wheel to line up bolts or keyways. Strong chain holds wheels upright. Loads roll easily on ball bearing swivel casters.

The Weaver Wheel Dolly is a "must" for fleet shops where big, heavy mounted tires and wheels are handled.

GET DETAILS . . . ASK for BULLETIN FO-602.

YOU'LL HAVE DOZENS OF USES for NEW WEAVER LO-HI-DRAULIC JACKS in 10 and 20-ton capacity . . . for general service in shop.

FOR DETAILS — request Bulletin FO-461.

WEAVER

WEAVER MANUFACTURING CO., SPRINGFIELD, ILL., U.S.A.

SERVICE SHOP EQUIPMENT

Complete line includes: Twin Post Lifts . . . Triple Post Lifts . . . Single Post Roll-on, Free-Wheel and Frame Type Lifts . . . Unit Lifts . . . Bumper Lift . . . Car Washers . . . Wheel Alignment Equipment . . . Headlight Testers . . . Brake Testers . . . Wheel Balancing Equipment . . . Jacks . . . Wheel Dollies . . . and Air Compressors.

Now FORD

3 all-new Super D

After six years of extensive engineering, come three new all-truck V-8 engines designed for maximum durability. Latest metallurgy and design developments have been utilized to achieve long-lasting engine performance. For example, materials developed for the current missile program are being used in the valve seals. Oil filters are the same type used in commercial aircraft. Submerged-type electric fuel pumps and fully machined combustion chambers are typical of the additional advancements you'll find in Ford's Super Duty V-8's for 1958.

Fully tested in the dynamometer laboratories, in trucks on the proving grounds and in commercial fleets from coast to coast, these all-truck engines have proved ready for the severe service required of today's heavy-duty trucks.

ENGINE
Bore and Stroke (in.)
Displacement (cu. in.)
Max. Gross Horsepow
Max. Net Horsepowe
Max. Gross Torque (l
Max. Net Torque (lbs
Compression ratio (to

New 534-cu. in. Super Duty V-8 pr
exceptional horsepower and torque
rugged durability.

D engines u

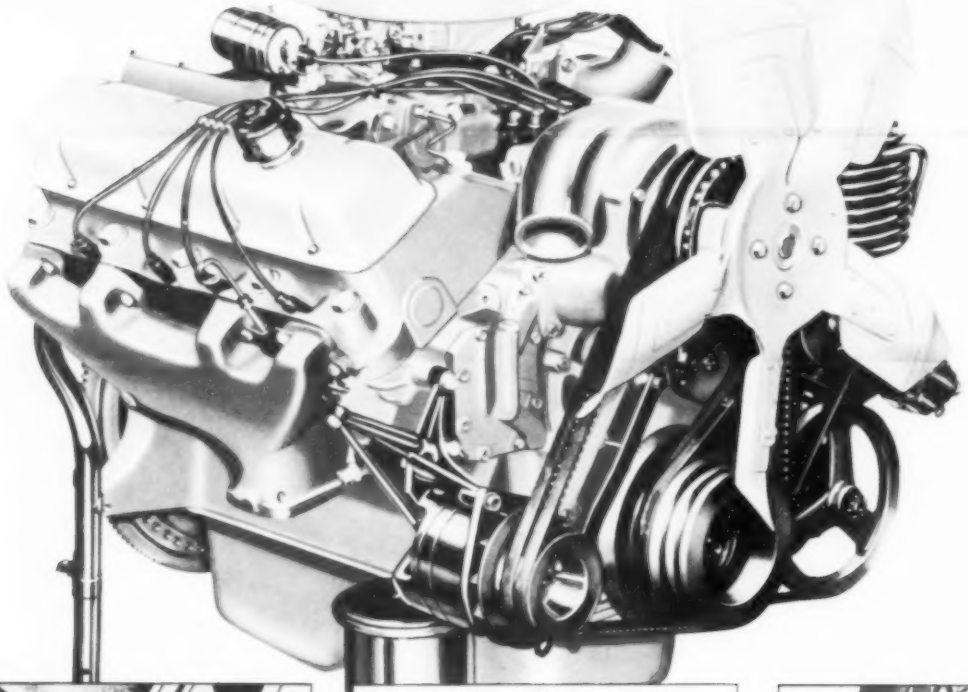
er Duty V-8's

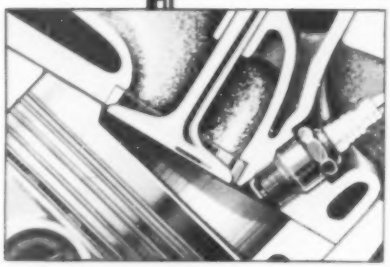
ENGINE	401 V-8	477 V-8	534 V-8
d Stroke (in.)	4.125 x 3.75	4.5 x 3.75	4.5 x 4.2
ment (cu. in.)	401	477	534
oss Horsepower (@ rpm)	226 @ 3800	260 @ 3600	277 @ 3400
t Horsepower (@ rpm)	190 @ 3600	224 @ 3400	246 @ 3200
oss Torque (lbs-ft @ rpm)	350 @ 1800-2300	430 @ 1800-2300	490 @ 1800-2300
t Torque (lbs-ft @ rpm)	338 @ 1600-2100	416 @ 1500-2000	474 @ 1600-2100
sion ratio (to 1)	7.5	7.5	7.5

uty V-8 provides
and torque with

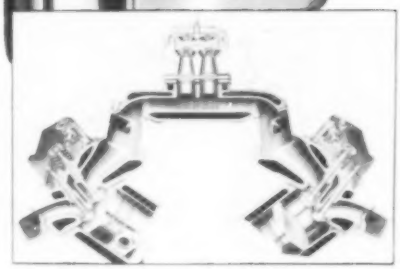
up to 534 cu

cu. in. for '58

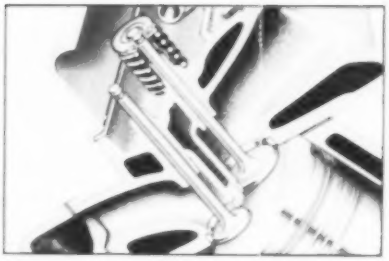




Top performance with regular grade fuel is attained with new fully machined combustion chambers and Turbulence Top pistons. This design promotes maximum fuel-air turbulence plus greater engine smoothness through accurate compression control.



Maximum power output with excellent economy is the result of Ford's water-jacketed induction system. Coolant (black areas) surrounds intake passages in manifold and cylinder heads for improved control of fuel-air temperatures.



Dished-type valves with positive rotators and integral guides result in maximum seating efficiency. Tungsten-cobalt faced valves and hardened alloy seat inserts provide extremely hard-wearing surfaces which prolong valve and valve seat life.

10 all-new Extra Heavy Du

GVW's up to 51,000 lb. For '58, ten new basic series are added to Ford's already extensive Heavy and Extra Heavy Duty line. Four new Tilt Cabs, four new Conventionals, and two new Tandem models offer GVW ratings up to 51,000 lb.

GCW's up to 75,000 lb. New T-950 Tandem is rated for 75,000-lb. GCW. Biggest single-rear-axle models are rated for 65,000-lb. GCW.

Front axle capacities up to 15,000 lb. Choice of three front axles in most new Ford Extra Heavies. Rated capacities of 9,000 lb., 11,000 lb. and 15,000 lb.

Rear axle capacities up to 29,000 lb. Wide choice of rear axles includes single-speed and two-speed, single reduction and double reduction types. C
to 29,000 lb.

Bogie axle capacities up to 3
new Extra Heavy Duty Tande
Series features a tandem rear a
New T-850 Series offers choice

New highway transmission
available in all ten new Ford
to 33% less shifting. "Short-
also available on "F" and "C"
missions, engines operate in
greater fuel economy.

e rotators
maximum
oalt faced
eat inserts
g surfaces
seat life.

Vapor lock is virtually eliminated with Ford's exclusive submerged-type electric fuel pump. Pump delivers solid fuel under pressure from tank and operates independent of engine speed. Maintenance problems are practically nonexistent.

Duty Series

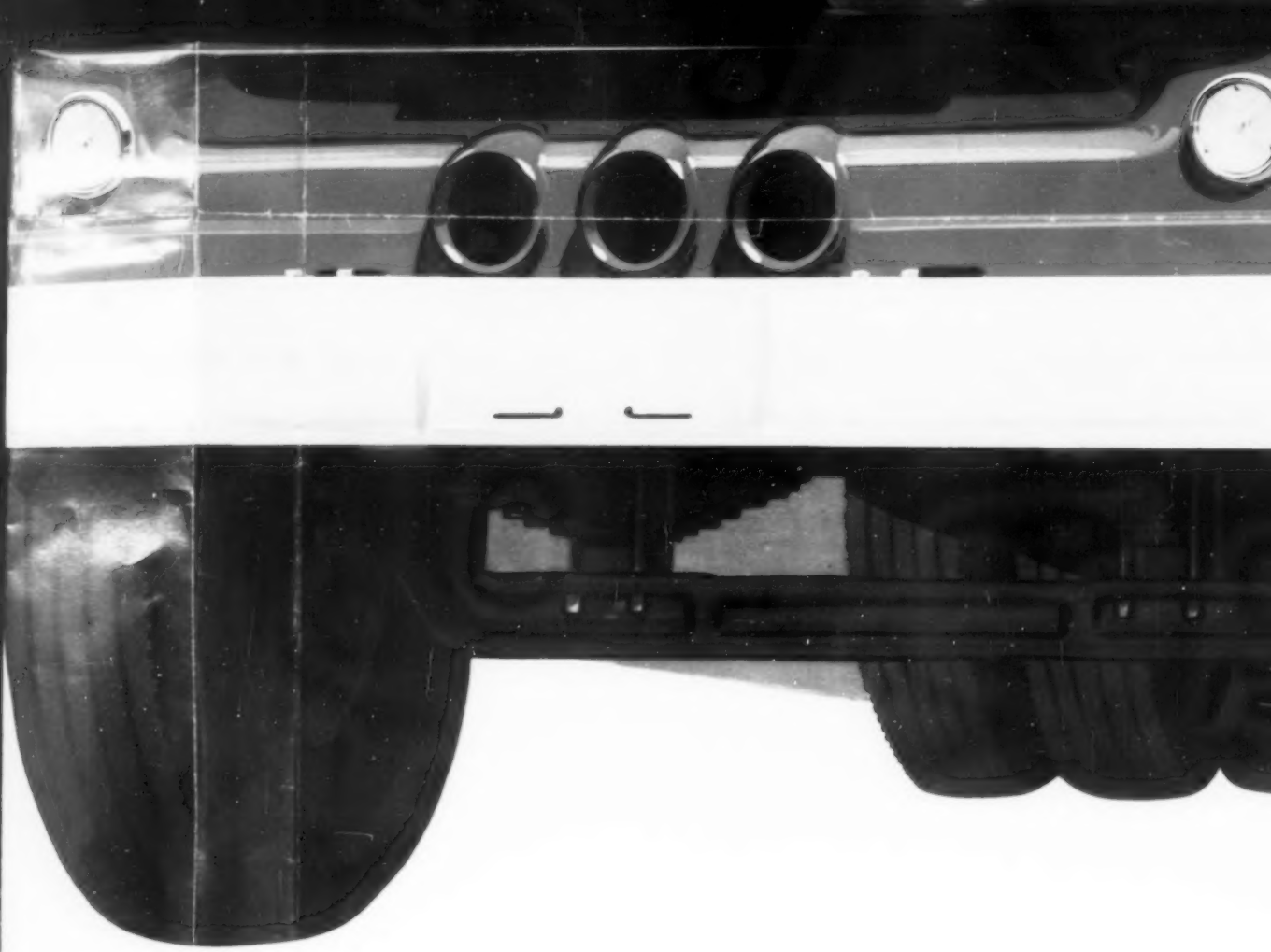
n types. Capacities range from 18,000 lb.

es up to 38,000 lb. For '58 there are two
uty Tandem Axle models. The new T-950
lem rear axle assembly rated for 38,000 lb.
fers choice of 28,000- or 34,000-lb. bogies.

smissions. Roadranger transmission is
ew Ford Heavies and Extra Heavies. Up
. "Short-Fourth" highway transmissions
' and "C" Series. With these new trans-
perate in peak horsepower range with
.

LINE	CONVENTIONAL—F-S		
SERIES	F-850	F-950	F-1000
GVW-lb., Standard Optional	25,000	29,000	30,000
GCW-lb., Standard Optional	50,000	55,000	55,000 65,000
Engine—Standard Optional	226-hp 401 V-8	226-hp 401 V-8	260-hp 477 V-8
Maximum Tire Size	11 - 22.5 12 PR	12 - 22.5 14 PR	12 - 22.5 14 PR
Front Axle—Standard Capacity-lb.	7,000	9,000	9,000
Front Axle—Optional Capacity-lb.	11,000	11,000	11,000 15,000
Rear Axle—Standard Capacity-lb.	18,000	21,000	21,000
Rear Axle—Optional Capacity-lb.	—	—	22,000
Brakes—Standard	Vacuum-Hydraulic	Vacuum-Hydraulic	Full Air
Brakes—Optional	Full Air	Full Air	—

FOR ADDITIONAL INFORMATION SEE YOUR LOCAL FORD



ONVENTIONAL—F-SERIES				TILT CAB—C-SERIES				TANDEM—T-SERIES	
0	F-950	F-1000	F-1100	C-850	C-950	C-1000	C-1100	T-850	T-950
	29,000	30,000	30,000 36,000	26,000	30,000	31,000	31,000 36,000	43,000 37,000 45,000	46,000 48,000 51,000
	55,000	55,000 65,000	65,000	50,000	55,000	55,000 65,000	65,000	70,000 55,000	75,000
8	226-hp 401 V-8	260-hp 477 V-8	277-hp 534 V-8	226-hp 401 V-8	226-hp 401 V-8	260-hp 477 V-8	277-hp 534 V-8	226-hp 401 V-8 260-hp 477 V-8 277-hp 534 V-8	226-hp 401 V-8 260-hp 477 V-8 277-hp 534 V-8
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	[illegible]	[illegible]	11,000 15,000	11,000	11,000 15,000	11,000 15,000	11,000 15,000	11,000 15,000	11,000 15,000
	[illegible]	[illegible]	22,000	18,000	21,000	21,000	22,000	34,000	38,000
	—	[illegible]	29,000	—	—	22,000	29,000	28,000	—
[illegible]-[illegible]	Vacuum-Hydraulic	[illegible]	Full Air	Vacuum-Hydraulic	Vacuum-Hydraulic	Full Air	Full Air	Vacuum-Hydraulic	Full Air
[illegible]	Full Air	—	—	Full Air	Full Air	—	—	Full Air	—

ATION SEE YOUR LOCAL [illegible] DEALER OR WRITE TO THE HEAVY DUTY TRUCK SALES DEPARTMENT, BOX 658, DEARBORN, MICHIGAN.

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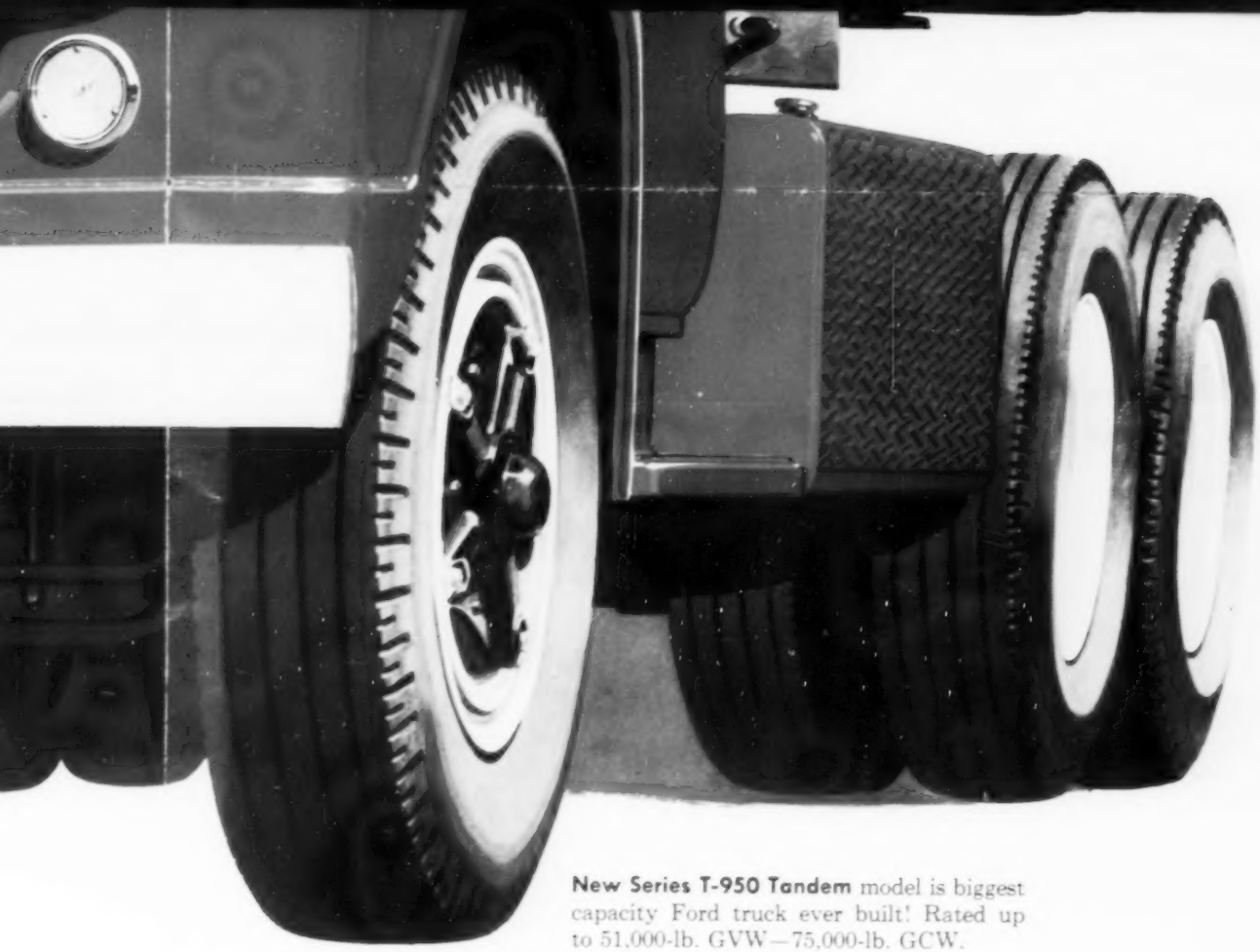
LESS TO



New Series T-950 Tandem model is biggest capacity Ford truck ever built! Rated up to 51,000-lb. GVW—75,000-lb. GCW.

FORD TRUCKS COST LESS

SS TO OWN . . . LESS TO RUN . . . LAST LONGER, TOO!

Don't miss the Biggest News in Truck History!

We shock TIMKEN® bearings to make 'em tough

(Another reason why TIMKEN® bearings are first choice with truck manufacturers)

THIS Timken® bearing race is getting the shock of its life. Heated to a cherry-red, it's dunked in a vat of cold oil. That's the final step in the case-carburization process that makes Timken tapered roller bearings hard on the outside, tough on the inside. With a hard, wear-resistant surface over a tough, shock-resistant core, Timken bearings are ready for any kind of beating on the road.

Case-carburizing is just one of the many steps we take to make sure Timken bearings give you miles of trouble-free operation. They're designed according to geometric law to give true rolling motion—precision manufactured to live up to their design. We even make our own steel to make sure we start with the best. No other bearing manufacturer in America takes that extra step to control quality. It's easy to understand why truck manufacturers use more Timken tapered roller bearings than any other make.

Take a tip from the manufacturers. Whenever you replace a tapered roller bearing, make sure you use a *Timken* tapered roller bearing. And for helpful service information, send for our free booklet, "Timken Tapered Roller Bearings—Their Care and Maintenance". Write Dept. OF-1, The Timken Roller Bearing Company, Canton 6, Ohio. Canadian Plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

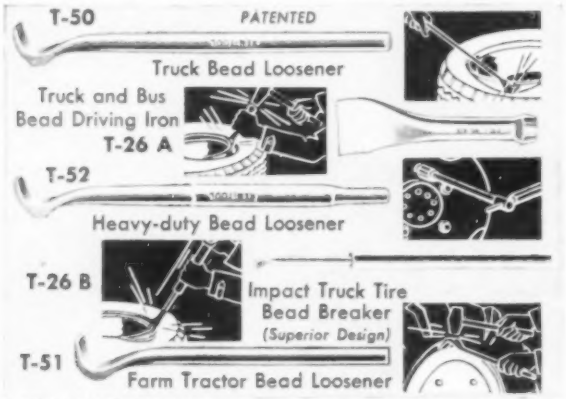
SINCE THEY'RE BEST WHEN THE TRUCK IS NEW, THEY'RE BEST FOR REPLACEMENT, TOO!

TIMKEN TAPERED ROLLER BEARINGS ROLL THE LOAD

TRADE-MARK REG. U. S. PAT. OFF.

Change Truck Tires *EASIER*
with JOB-DESIGNED KEN-TOOL
QUALITY BEAD LOOSENERS

Free frozen beads quickly with exclusive Ken-Tool Bead Looseners. They provide greater leverage . . . loosen the most stubborn truck tire beads quickly, easily.



SEE YOUR JOBBER on the complete line of *Job-Designed* Ken-Tools. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. THE KEN-TOOL MFG. CO., AKRON 5, OHIO.

JOB-DESIGNED KEN-TOOLS
TIRE CHANGING TOOLS KNOWN, USED AROUND THE WORLD

Identify your TRAILERS
with YOUR NAME or PRODUCT NAME

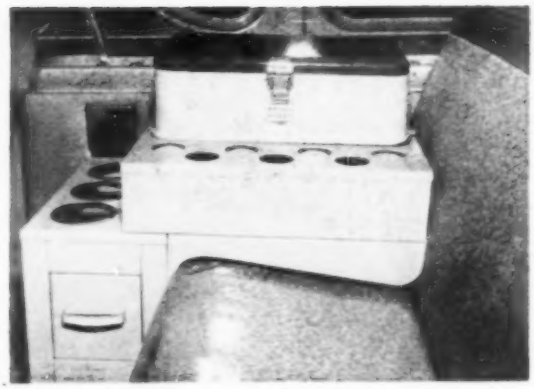
with SIGNS of ALUMINUM or STEEL

GRACE TRUCK SIGNS
ARE DURABLE BAKED ENAMELS

They tell and sell . . . forcibly . . . give strong identification in an attractive manner . . . so much better than hand painted signs on your Trucks that chip, weather and show wear. Grace Truck Signs, of Aluminum or Steel, are more durable, and are easy to attach. They're for you!

✓ WRITE FOR FULL INFORMATION...

GRACE SIGN & MFG. CO.
3601 S. SECOND STREET • ST. LOUIS 13, MO.



Portable bus bar . . .

. . . adds a luxury touch to vehicles used for charter service. Big advantage to this shop-made gimmick is that it can be moved from bus to bus as necessary. Designed by C. W. Hudson, of San Diego, Calif., the handy little bar is equipped with everything but swinging doors. The ice chest sits in a water-tight reservoir; drainage is provided for melting ice through a copper tube leading to a hole in the floor. A shower curtain protects seats around the bar. A sub-floor under holes for bottles or cups allows for drainage and acts as a stop when anything is inserted. Supplies—cups, bottle openers, and a tray perforated to carry drinks—are kept in a drawer below seat level.

Cut-away models . . .

. . . are used in class instruction, under a new training program developed by Greyhound Corp. Personnel and maintenance departments are working together in the long-range program whose immediate objective is to improve the caliber of the maintenance supervisory force. The training center operates on a five-week cycle, and its curricula will include diesel engines, air-conditioning, electrical systems, running gears, service-lane operations, supervisory and administrative policies. Pilot operations started in October, when 5 supervisors for seven operating divisions were selected to attend the opening session. Plans call for training 90 supervisors by June, 1958.

OUT OUR WAY by J. R. Williams

YOU GET MULTIPLE RECAPS

with Lee Super DeLuxe Highway Nylon Tires

The Lee Super DeLuxe Highway Nylon Truck Tire *costs less per mile*. That's because its premium features result in long original mileage and greater carcass strength for multiple recaps.

The extra-strong, extra-tough nylon cord provides maximum protection against impact bruises, blowouts and moisture damage. Nylon gives you a cooler-running tire, too, because there is less bulk. All cords are treated by Lee's exclusive double-dip Flexlok process which reduces heat, resists the effects of repeated flexing, and makes cord separation from the rubber bond practically impossible.

Every component of the tread design contributes to maximum mileage, better traction and cooler running. Only the best grade of Smoked Sheet natural rubber is used. The flat contour and the deep tread put more rubber on the road to distribute the load and increase tire life. Angular center-tread grooves and the bars between the ribs help prevent little cuts from becoming big cracks.

Lee Super DeLuxe Highway Nylons—tubed or tubeless—are an outstanding tire buy! Write direct, or look for "Lee of Conshohocken" in the Yellow Pages of your Telephone Directory.

* * *

The complete Lee line, shown below, includes a tire which will lower *your* operating costs by giving longer life, more recaps. Let us prove it to you.

LEE TIRES

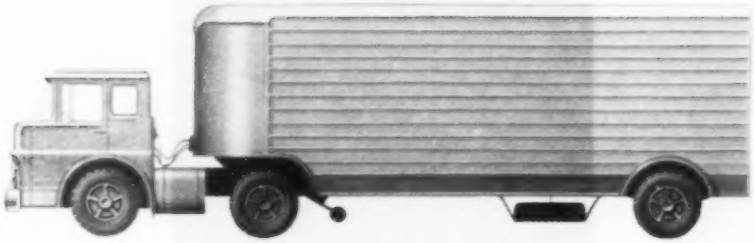
LEE RUBBER & TIRE CORPORATION CONSHOHOCKEN, PA.

Standard Oil research develops new motor oil formula,
gives more heavy-duty protection

NEW

STANOLUBE

prevents
bronze wrist-pin bushing corrosion
in
severe service



Researchers at Standard Oil have developed new formulas for STANOLUBE Motor Oils. These new motor oils now eliminate corrosion of bronze wrist-pin bushings. This is another example of how research keeps STANOLUBE Motor Oils ahead of the demands imposed on lube oils by the newer, higher horsepower engines.

Laboratory and field tests prove that new STANOLUBE Motor Oils have superior resistance to deterioration caused by bronze and other copper alloys. They retain their ability to protect against oxidation and wear. They also protect against both ring sticking and cam follower wear.

STANOLUBE Motor Oils provide superior service over a wide range of operating conditions. They are refined from highest-quality base stocks. Special additives developed by Standard Oil research retard oil oxidation, minimize formation of piston and ring deposits, prevent formation of excessive varnish and sludge, and prevent corrosive attack on bearing metals.

Give your equipment this extra protection. Get the facts about STANOLUBE Motor Oils from your Standard Oil automotive lubrication specialist. There's one near you in any of the 15 Midwest or Rocky Mountain states. Or write **Standard Oil Company (Indiana), 910 South Michigan Ave., Chicago 80, Illinois.**

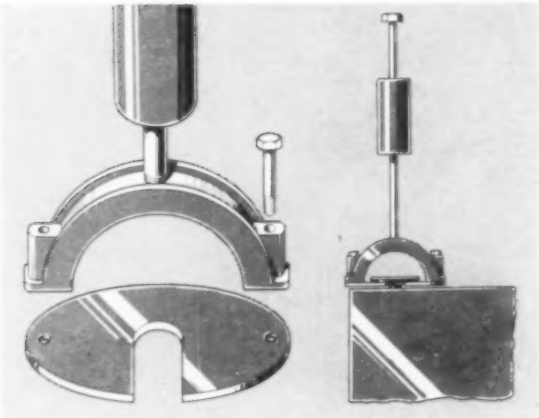
Quick facts about

STANOLUBE Motor Oil

- Refined from highest-quality, solvent-extracted base stocks.
- Contain special additives that prevent bearing and bronze wrist-pin bushing corrosion, reduce piston ring varnish and keep rings free to seal against blow-by.
- Contain still other additives that reduce wear on heavily stressed parts.

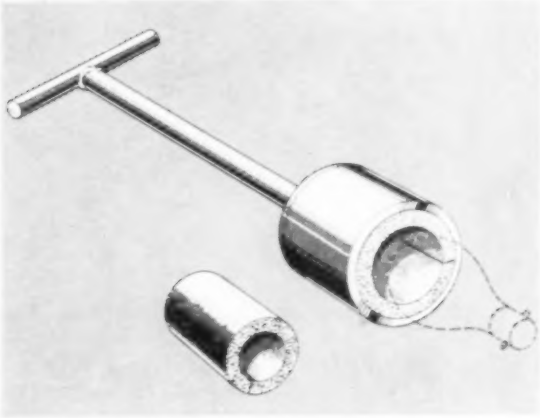
You expect more from STANDARD and get it!

Shop Kinks: A Dozen Answers to



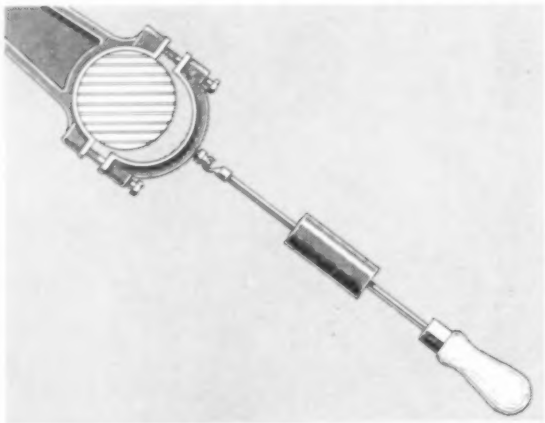
Valve slide-hammer . . .

. . . makes short work of it when valves are stuck. Also, it does the job without damaging the valves. The part that hooks over the head of the valve is made from 3/16" plate and is drilled and tapped to take bolts that hold yoke. Slot is cut in plate slightly larger than valve stem diameter. Old rod bearing cap makes a good yoke. Drill and tap the yoke to take a 1/2" bolt 12" in length. Drill a piece of 3" round stock to make the slide hammer and assemble as shown in illustration above. *$10 to William R. Skinner, Robinson Bros. Logging Co, St. Maries, Idaho.*



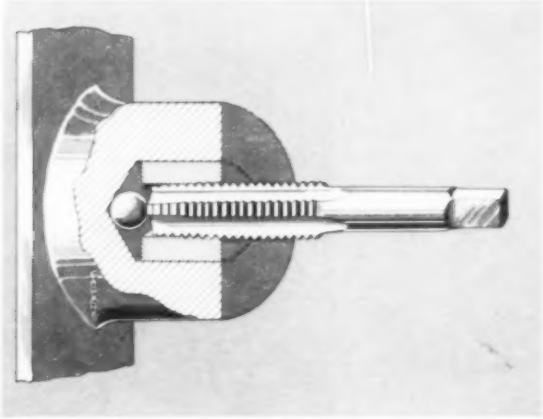
Bulb replacer . . .

. . . simplifies removal and installation of prong-type bulbs. We've all had to use gloves or a rag at one time or another to remove a stuck bulb and, when it breaks, there's always the danger of a nasty cut. This tool solves the problem. The sleeve used here is a GMC flex drive coupling #82-15-053, and the rubber inserts are cut from GMC part #90-85-002. Cut one piece 1 1/8" by 3", the other 1 1/8" by 2". Slip the 2" piece inside the other for the smaller bulbs. Braze "T" handle on sleeve to complete the job. *$10 to Fred Sellet, New York City Transit Authority, Brooklyn, N. Y.*



Slide hammer . . .

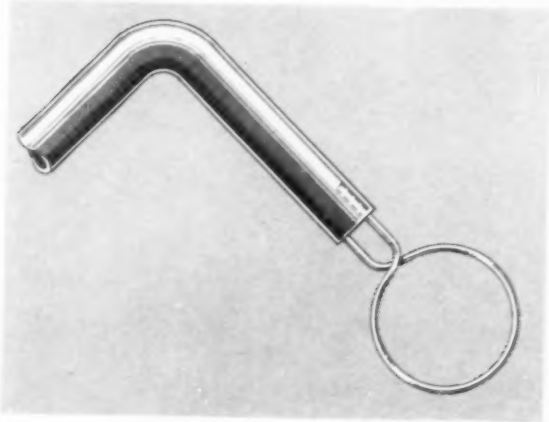
. . . solves the old problem of stuck bearing caps. Sometimes, main bearing caps just won't come off after the nuts are removed and it's easy to damage them by prying or striking them. Here's an application of the well known slide hammer which makes the job easy. Bearing usually has threaded hole in center for oil-line fitting or pan bolt, so just turn in a cap screw or other suitable fitting and attach hammer as shown. (Editor's note: It's usually a good idea to leave the nuts loose, but in place till the cap is freed.) *$10 to Joseph's Auto Service, Gardenville, Pa.*



Bushing remover . . .

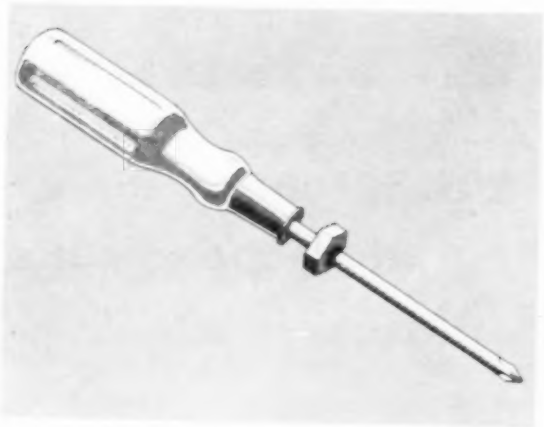
. . . takes care of bushings that are driven into blindend holes. Just drop a ball bearing into the bore of the bushing. Then select a tap which has a larger O.D. than the bushing bore and start a thread in the bushing. When lower end of tap makes contact with ball, continued turning of tap will force the bushing upward and out of the hole. Use a tap that will give at least 25% of total thread depth. (Editor's note: This should certainly work but you'll have to be careful. If bushing is "frozen" you may break the tap.) *$10 to Clifford T. Bower, London, England.*

Everyday Problems



Hose clamps . . .

. . . are easy to handle with this tool. All too often, when you're ready to install the radiator hose clamps, someone has "borrowed" the hose clamp pliers. Sketch shows how a piece of pipe or copper tubing can be used in place of the pliers. Using copper tubing this way you can work in hard-to-get-at places where hose clamp pliers would be difficult to use. Squeeze ends of the hose clamp together and insert them in end of tubing. Tubing can be shaped as desired. When clamp is in place, pull the tubing off. *$10 to Stan Clark, Dixie Transport Co. East Bradenton, Fla.*



Screwdrivers . . .

. . . can be modified so that you can use a wrench for more torque. Most screwdrivers come with round shanks and sometimes it is impossible to get enough turning effort without an "assist." This is especially so when working with the larger size Phillips or slothead type screws. A small pipe wrench will sometimes do the trick, but here's an easier way: Just take a hex-head or square nut of suitable size and weld or braze it to the shank as shown. Now, you can use an open end or an adjustable wrench for more power. *$10 to Leo A. Provost, Newark, N.J.*

In Brief . . .
6 Shop Kink Ideas

ANTI-KINKING ANGLE prevents collapsing of copper tubing. Before attempting to bend tubing, insert a length of speedometer cable inside the tubing. *From Stan Clark, Stanley Clark Service, East Bradenton, Fla.*

ICE PICK makes it easy to use timing lights on hard-to-get-at sparkplugs. Blunt the end and it can be slipped into place easily. Wooden handle protects you from shock and you don't have to stop the engine to make connection. Keep it with your screwdrivers. *From Harold Oster, Torrance, Calif.*

A PIECE OF WIRE can be used to prevent damage whenever threaded work is gripped in a vise. As sometimes happens, the only place it can be held in the vise is on the threaded portion. Several turns of wire wrapped in the threads will prevent vise or chuck jaws from marring the threads. Wire must be of proper size in order to fit the "V" and still project beyond the outside diameter of the threads. *From Harry Miller, 991-42 Street, Sarasota, Florida.*

FOR TOUCH-UP WORK it is often necessary to pour small amounts of paint from a large can into the spray-gun cup or small touch-up container. This gets messy since it's hard to control the paint flow. An easy way to do this is to hold a straight length of wire across the center of the paint can and leave an inch or two projecting beyond the lip of the can. Now, with a little care in pouring, the paint will follow the projecting wire right into the small container. *From Henry Josephs, P. O. Box 22, Gardenville, Pa.*

PLASTIC HANDLES on screwdrivers and other hand tools can be dangerous. Some of them are flammable and are a hazard around open flames—and, in some cases, can ignite spontaneously. Check those you already have in stock and, for safety's sake, when ordering new ones, make sure they're not the "flammable" type. *From C. B. Hall, 21 N. Hatton Street, Portsmouth, Va.*

TRUCK DOORS WON'T SWING and damage body if brackets are installed with snap-type "goat hooks" to hold door open. *From Bert Goldrath, 1717 Hamlet St., San Mateo, Calif.*

R. R. WYNNE, GEORGIA HIGHWAY EXPRESS, INC., reports:

"Nylon cord tires last 82% longer than ordinary tires on grueling, high-speed runs"

CUT ROAD DELAYS 50%. "Frequent road delays and tire repairs cost us plenty before we switched to nylons—especially on runs like the one shown here. With nylon cord tires, road delays are cut in half and the average mileage life of our tires is 82 per cent higher. The truck in the picture hauls maximum-weight loads of 44,000 pounds, 24 hours a day, at speeds up to 50 miles per hour. Heat damage and flex strain kill ordinary tires that get that kind of treatment—but not nylons.

COST PER MILE ALREADY DOWN 11%. "Most of the nylon cord tires we've purchased are still accumulating mileage after four recaps! Nylon resists bruise damage; moisture can't rot nylon. Advantages like that help lower the cost per mile, and ours has decreased 11 per cent since we began using nylon cord tires in 1953."

PROVE TO YOURSELF that the advantages of nylon cord tires can add up to real savings under your road and load conditions. Ask your dealer about nylon cords today. Du Pont makes the tough, long-lasting nylon. Nylon cord tires are available from all tire makers.

Du Pont nylon for tire cord

DU PONT

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

THE SAFEST, STRONGEST TIRES ARE MADE WITH NYLON

Here's HOW a Wagner-Sangamo *Tachograph* on each of your vehicles can help make your fleet safer, more efficient and economical

A Tachograph is a recording speedometer. It is installed on the dashboard and provides you with the same important data you would gain by having a fleet supervisor ride with each driver on each trip.

A wax-coated chart (costing little more than 2¢) is placed inside the Tachograph before each trip, and records vital information you can use to improve fleet operations.

CHART PROVIDES ACCURATE RECORD of vehicle movement. Graphic record shows when engine started; how long it idled; when vehicle was in motion; how fast it traveled; when it stopped and for how long; and distance traveled between stops.

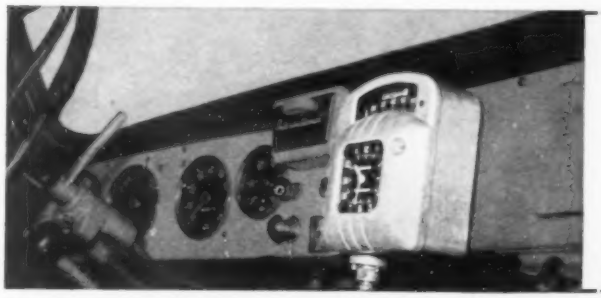
VERIFIES REPORTS and CUTS DOWN WASTED TIME. Through analysis of the chart, you know the number of hours and miles driven, overtime, loading and unloading delays, and the number and length of stops made in any 24-hour period. And because speed is controlled, savings are effected in fuel, oil and tires.

FURNISHES DATA FOR BETTER ROUTING—by helping you determine the best routing for normal, "express," or special runs. Graphic charts indicate where traffic tie-ups are likely to occur, and where slow-downs are necessary.

PROVIDES INFORMATION FOR USE IN ACCIDENT CASES. Chart records the exact time an accident—if any—occurred. It also shows the speed at which your vehicle was traveling, the duration of the delay, and the time travel resumed. Tachograph charts have often been used to substantiate driver's testimony in court cases involving accidents or speeding.

AVAILABLE IN M.P.H. or R.P.M. MODELS. For details, mail coupon for Bulletin SU-3.

WS58-1



Wagner Electric Corporation
6481 PLYMOUTH AVE., ST. LOUIS 14, MO.
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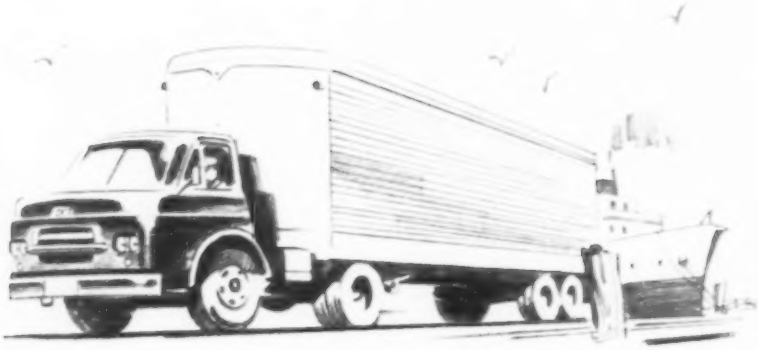
Name and Position_____
Company_____
Address_____
City_____ State_____
We operate_____ Vehicles
(NUMBER)

LOCKHEED HYDRAULIC BRAKE PARTS, FLUID and BRAKE LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES

In the Hauling Business—



Eaton 2-Speed Axle Trucks Maintain Faster Schedules—at Lower Cost Per Mile!

Pulling out-of-the-hole in off-the-highway operation, making time on the hills, maneuvering in heavy traffic, highballing on the open road — each calls for a different gear ratio to assure maximum efficiency, economy, and safety. Eaton 2-Speed Axles *double* the number of available gear ratios, permitting the driver to use the one best suited to road, load, and traffic conditions. This use of the *right* gear ratio for every situation permits engines to run in their most efficient and economical speed range, reducing stress and wear on all power-transmitting parts. Not only do Eaton 2-Speed Axle trucks make more and quicker full-load trips, but they do it at lower operating cost and with less maintenance; they stay on the job and out of the shop. Even under the roughest conditions, trucks equipped with Eaton 2-Speeds last thousands of miles longer — and they're worth more when traded in.

More than Two Million Eaton Axles in Trucks Today. For complete information, see your truck dealer.

EATON — AXLE DIVISION — MANUFACTURING COMPANY
CLEVELAND, OHIO

PRODUCTS: Engine Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Hydraulic Pumps Motor Truck Axles • Permanent Mold Gray Iron Castings • Forgings • Heater-Defroster Units • Automotive Air Conditioners Fastening Devices • Cold Drawn Steel • Stampings • Gears • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers

Reefers: Results of Lab and Road Tests Show . . .

. . . high consistency in rate of heat transfer. This finding was based on tests with the first two trailers rated in the TTMA-sponsored program to develop a standard method of measuring heat gain in refrigerated vehicles.

Cooling loads of the two trailers were different, but the ratio of lab and highway ratings was remarkably consistent for each, according to Mr. P. R. Achenbach, chief of Air Conditioning and Refrigeration Section, National Bureau of Standards. Using 100 for the transfer rate in lab tests, comparable road-test rates at 50 mph were between 120 and 130. Findings were based on spot samplings of road data.

. . . relation between heat and moisture gains

One trailer ended up with a greater moisture accumulation than the other — both in laboratory and road tests. However, says the report, not all the difference in cooling load could be accounted for by difference in moisture gains.

The trailers gained roughly one half to a pound of moisture per hour during the lab tests—150 to 250 lb during the road tests. It was reasoned that air infiltration into the insulated cavity was the principal source of moisture gain, since diffusion was found to be almost a negligible factor. (Diffusion was defined as molecular movement of moisture from zones of higher concentration to zones of lower concentration under the influence of a difference in vapor pressure. Air infiltration was described as moisture-laden air passing through the trailer structure.)

Previous air-infiltration tests in the series have indicated that the main source of air leakage is the trailer's nose, since the pressure differential between nose and interior at 50 mph was found to be approximately 1.25 in. water column.

. . . effect of road speed on roof temperature

The tests have made it possible, for the first time, to obtain rather precise information about the effect of road speed on temperature at various points surrounding the trailer. For example, on a clear day, the roof temperature was 103 deg, while the ambient was 75 with the trailer standing still. At 50 mph, roof temperature dropped to about 80, or only 5 deg above surrounding air temperature.

. . . effect of engine heat under floor of trailer

Another interesting phenomenon was the observed temperature under the trailer. This data, says the report, may be significant in relation to the need for better floor insulation.

On-the-road temperature of the underside of the trailer floor was 15 to 18 deg above ambient. But with vehicle at a standstill (with tractor engine turned off) temperature under the floor dropped to ambient. This was found to be true day and night—even during a rainstorm at night. Generally, temperatures under the floor were as high or higher than those observed on the roof at 50 mph—whether the sun was shining or not.

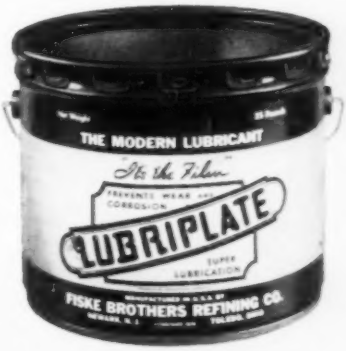
Obviously, the temperature rise was not due to reflected heat. The report therefore concluded that the higher temperature was caused by the discharge of engine heat under the trailer.

The road tests were conducted on the Ohio Turnpike — using a White tractor and a Fruehauf trailer (operated 2500 miles) and a Trailmobile trailer (operated 5000 miles).

Lubriplate No. 630-2 is a high temperature, extreme pressure, water-repellent, grease type lubricant. Ideal for the general lubrication of Industrial, Automotive, Construction, Farm and Marine Equipment. Lubriplate Grease Gun Cartridges provide an easy, quick, economical means of application. Prevent the waste and mess of hand filling. Packed 10 Cartridges in a handy carrying carton.

REGARDLESS OF THE SIZE AND TYPE OF YOUR MACHINERY, LUBRIPLATE LUBRICANTS WILL IMPROVE ITS OPERATION AND REDUCE MAINTENANCE

For nearest LUBRIPLATE distributor see Classified Telephone Directory. Write for free "LUBRIPLATE DATA BOOK" . . . a valuable treatise on lubrication. LUBRIPLATE DIVISION, Fiske Brothers Refining Company, Newark 5, N. J. or Toledo 5, Ohio.



It's Down Time that Costs You Money!

Down time ups your maintenance costs and kills your profits when vehicles are sidelined for repairs.

Damaging dirt, grit, and gummy sludge in motor oil is a big factor in Fleet vehicle D. T.'s. WIX HEVI-DUTY Oil Filter Cartridges keep motor oil clean—keep these harmful contaminants out—keep your units on the road—LONGER! There's a WIX Cartridge expressly engineered for every filter equipped gas or Diesel engine on all trucks, buses, passenger cars and other equipment.

You'll find WIX Engineered Filtration sharing the responsibility for many profitable Fleet operations. Ask for a FREE Survey of your complete filter requirements, and an Inventory Control Record for your Fleet. Call your local WIX Jobber, or write us direct.

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OIL FILTERS / AIR FILTERS

AUTOMOTIVE • INDUSTRIAL • RAILROAD

WIX CORPORATION • GASTONIA • N. C.

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Driver's choice in the Emery fleet. "A major factor in our success with Macks has been our drivers' pride in these superb units," says President Ratner. Emery's Mack COE's make the long Midwest-East Coast runs.

Emery rates their 40 Mack diesels

Tops in dependable, economical operation

"Macks are excellent, all-around performers," says President Milton Ratner of Emery Transportation Company, "as dependable as they come. They're well-matched with any of our types and lengths of trailers.

"We're highly pleased with fuel and upkeep economies as well. Our Mack COE's, for instance, are averaging 7 miles per gallon pulling 32,000-lb. loads. Despite schedules that take them from 70 to 90 thousand miles per year, down time on all 40 units has been negligible.

"We operate 200 tractors right now," says President Ratner, "and our 40 Mack diesels are the backbone of our long-haul operation."

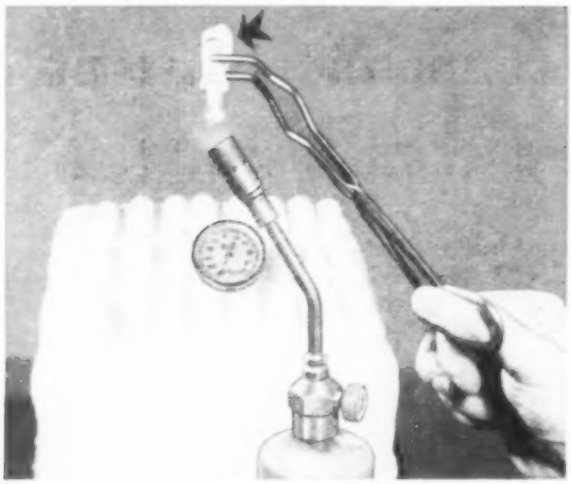
If operating costs are a headache, why not find out soon from an actual Mack user how you can have outstanding economies *plus* the finest in reliable performance.

Call your Mack dealer. Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd.

MACK
first name for
TRUCKS

5521

4 ways Champion helps all your engines get



No.1 *Exclusive Technical Help*

Your Champion representative and Champion field engineer make a team with the knowledge and equipment to assure you top ignition performance under all operating conditions. They bring you a wealth of fleet ignition experience. And they are backed by the world's largest research and engineering organization devoted exclusively to spark plugs. If you need help improving ignition performance, call on your Champion team.

No.2 *Important Product Features*

A Champion ceramic insulator is held in 3,000° flame immediately after being taken from block of dry ice at −100°. (Arrow points to frost on insulator.) Even this severe heat shock could not damage the Champion ceramic. It's additional proof that Champions will stand up to the severest conditions your fleet can ever encounter.

better spark plug and ignition performance

No.3 *Maximum Life*

Champions give your fleet the advantage of the longest possible spark plug life—even under tough working conditions like these. Hard, heavy hauling soon puts combustion chamber temperatures up into the critical ranges where ordinary electrode materials burn away far faster than Champion's Power-fire electrodes.

No.4 *Specific-Engine Design*

This spark plug on the drawing board is typical of work constantly being done by Champion engineers. They design spark plugs to deliver maximum performance from *every* engine. And then they try to improve what are already the finest spark plugs made. It's another reason for Champion's continued leadership.

SERVICE TIPS

for better truck performance

How important is plug torque?

We know a lot has been written about the importance of proper plug tightening. Just recently one "authority" stated that plugs will preignite unless they are installed with a torque wrench.

Frankly, we haven't found this to be true. Using thermo-couples on the spark plug firing tips, we found negligible temperature change between 15, 20, 25 and 30 ft-lbs torque. Thus, all we ask is that Champion plugs be installed *reasonably* tight . . . somewhere near the recommended 30 ft-lbs. for 14mm. plugs.

True enough, torquing is more important with the old style copper gaskets still used by some manufacturers. That's because these gaskets don't hold a given torque too well, and will tend to loosen considerably after a few thousand miles. With the present steel (silvery colored) Champion gaskets, however, removal torque is very close to installation torque.

Bypass condensers

With the increased use of two-way radios in fleet operations, we've seen quite a number of bypass condensers incorrectly installed on the "distributor side" of the ignition coil. This is the same as using too large a capacity condenser across the breaker points—can encourage point burning and plug fouling. Be sure radio bypass condensers, if used, are on the "battery side" of the coil primary.

Keep paint off ignition wires

If you're painting overhauled engines, be sure your V.P. in charge of the paint shop thoroughly cleans ignition cables (and plug insulators). Lead in the paint acts much like shielding on the wires, can considerably "load" the ignition system and be a source of misfiring under load when voltage requirements are highest.

For all engines—

CHAMPION

SPARK PLUGS

CHAMPION SPARK PLUG COMPANY • TOLEDO 1, OHIO

Heavy Duty Piston Rings
Made of Special Metals
A McQUAY-NORRIS EXCLUSIVE!
Phosalloy . . . a special, long-wearing high-phosphorous iron, alloyed at 3100° F. in our electric furnaces, to produce unusual tension retaining qualities. This—together with cam-shaped, pre-lapped, Chrome Armored steel rails—adds up to the best heavy-duty piston rings on the market. Another McQuay-Norris exclusive!
McQUAY-NORRIS
HEAVY DUTY
CHROME CONTROL
LEAK-PROOF
PISTON RINGS
Keep your fleet on the Go!
McQUAY-NORRIS Manufacturing Co.
St. Louis · Toronto

FLEET OWNER

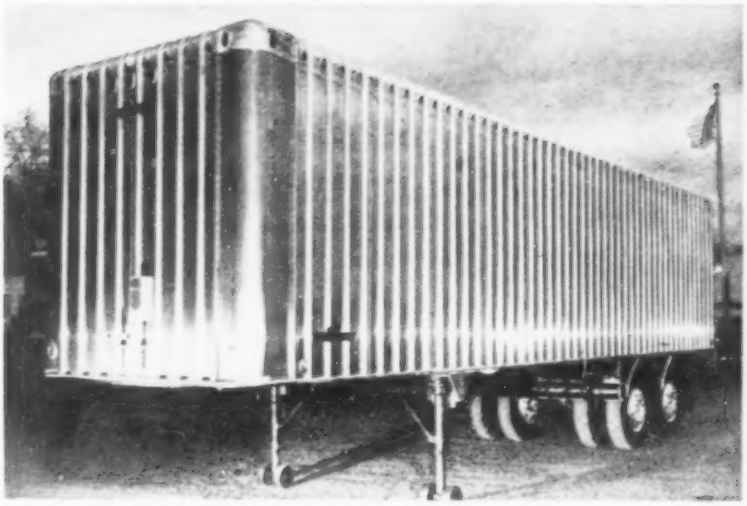
AUTOMOTIVE

Showcase

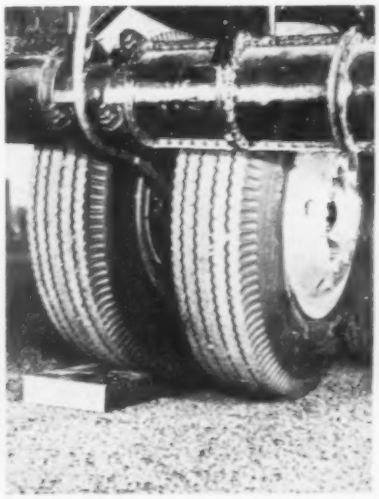
8 PAGES OF NEW PRODUCTS FOR THE FLEET OPERATOR

JANUARY, 1958

This month's feature:

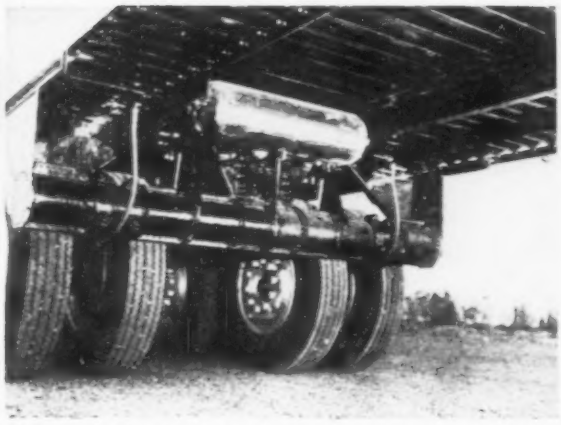


AIRCRAFT FABRICATION TECHNIQUES produced this all-aluminum box. Steel is used only in landing gear, fifth wheel, some hardware, and suspension system.



WHEEL REMOVAL can be accomplished without a jack on this tandem.

TRAILING ARMS which support duals provide true "caster" action and independent mounting for each wheel.



SUSPENSION SYSTEM has no conventional full-width axles. Wide spacing of axle support points improves stability.

All Aluminum High-Cube Box Has Unique Suspension

Story starts on next page→

All Aluminum High-Cube Box Has Unique Suspension

Continued from page 119

USE OF THE MONOCOQUE CONSTRUCTION TECHNIQUE common to aircraft has given this 35-ft box a total of 2180 cu ft of usable volume, while holding its weight down to only 8100 lb. This includes the weight of its aluminum alloy disk wheels and 10.00 x 20 tires. Designed by the Grumman Aircraft Engineering Corp., Bethpage, L. I., the trailer is built by Aerobilt Bodies, Inc., Athens, N. Y., a Grumman subsidiary.

The final concept of the trailer was the result of ten years of testing, and actual service use of seven prototype models, according to George M. Skurla, chief engineer. The trailer box is mounted on a deep-section aluminum beam, which consists of a 1¾ in. by 6 in. channel-section beam running from the transverse landing gear to the rear bumper.

WEIGHT SAVING has been achieved without sacrifice of strength or rigidity. In this system of construction, walls, roof, and floor of the trailer are the structure rather than merely curtain walls fastened to a frame. The floor is made up of extruded aluminum alloy "planks" laid *transversely*.

The planks, which have a tongue-and-groove waterproof joint, are riveted to the longitudinals and side beams. Wooden special section beams may be substituted at intervals to provide for nailing-area requirement. The side beams —special section extrusions—also act as rub rails. The strength of the floor is 1000 lb. per sq ft in all areas.

The sidewalls and roof of the trailer are made up of aluminum alloy sheets rolled to a corrugated cross-section with corrugations 4⅓ in. wide, 1/14 in. deep and 8⅔ in. on centers. By using sheets of identical size and shape, the problem of repair and replacement is simplified.

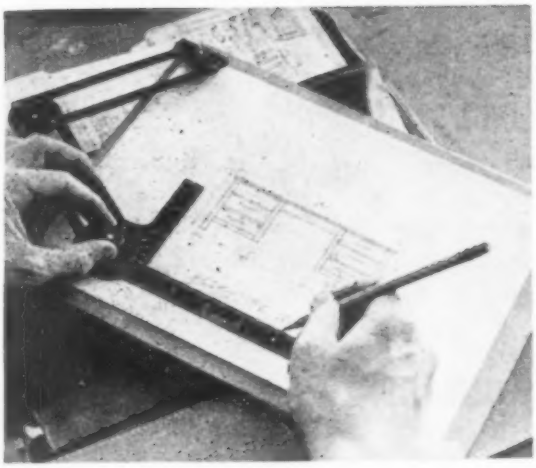
THE SUSPENSION SYSTEM uses the Torsilastic "spring" unit, a development of the B. F. Goodrich Company. These units basically consist of two concentric metal cylinders with a filler of rubber between them. The filler, of special compound rubber, is 11/16 in. thick and is bonded to the steel inner cylinder and the aluminum alloy outer cylinder. Forward end of the trailing arm clamps to the inner cylinder.

The outer cylinder is in four separate sections. Two are primary sections that fasten to the structure. The other two form a "helper spring" section that comes into effect at approximately 20% of maximum allowable axle load.

The reaction for the helper spring is created through a linkage system which connects the fore-and-aft pair of wheels on each side of tandem. This arrangement also acts to equalize the load distribution between the front and rear wheels. Maintenance of these units is simplified since there are no lubrication points on the tandem other than the wheel bearings and brake linkages.

THE TRAILING ARM LINKS are constructed of steel tubes 5 in. in diameter. The after-end of each arm is fitted with two spindle and brake assemblies. In this suspension, each pair of wheels is sprung independently and each wheel rotates individually—which permits them to choose their own speed of rotation. Thus, it is claimed, there is a substantial reduction in tire wear from scuffing on curves, crowned roads and in maneuvering. Also, this permits the use of individual brakes on each wheel.

Another unique feature of the suspension is that wheels may be removed individually and without a jack. As shown in the photo, a wheel is simply rolled up a small ramp which has sufficient thickness to bring the adjoining wheel clear of the ground for easy removal. Location of the trailing arms between the two wheels of each pair results in a transverse distance of 61¾ in. between pivot points as compared to the maximum 35-40 inch distance between shackle points on ordinary tandems. This distance greatly improves trailer stability and reduces body sway.

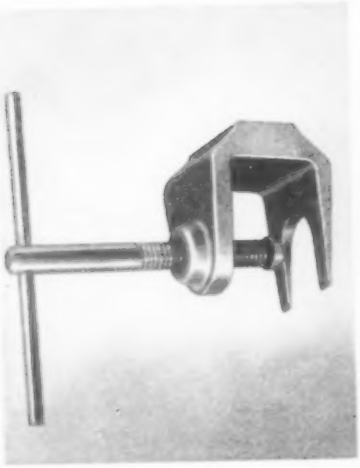


Portable Drafting Machine

A new precision instrument, "Draftette," is so compact that it can be folded jackknife-style to fit in pocket or briefcase when detached from drawing board. It takes the place of T-square, ruler, protractor and triangles, and is suggested for use wherever drawing, drafting, sketching and designing with high accuracy is required. It is of all-aluminum construction, anodized jet black with white-filled numbers and letters of the scale, and 180-degree protractor. Complete "Draftette," with 10-by-13 drawing board, sells for $5.95; with 11-by-17 board, (weight—2 lb) the price is $6.50; with 20-by-26 board (weight—3½ lb) the price is $18.95. *David Miller & Associates, Box 572, Beverly Hills, Calif.*

Contour Fenders

These new lightweight fenders for tractor-trailer combinations are constructed of fiberglass and shaped to provide maximum protection against thrown mud, rocks and grime. They cover 90 deg of the rear wheel and give adequate throw-back protection to other vehicles. Maker says they eliminate the need for mud flaps. The tandem set shown here weighs less than 90 lb and can be quickly installed on existing equipment. In addition to low weight, the fiberglass fenders are said to have a natural resilience which shakes loose accumulated mud and slush. The complete line of fenders includes tandem sets for four-wheel drive tractors, shorter sets for two-wheel driver tractors, and contour fenders for trailers. *Fibraco Co, Mason, Iowa.*

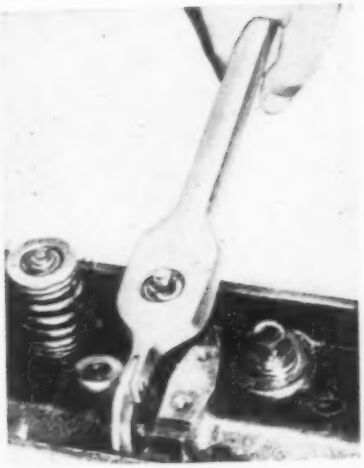


Battery Terminal Puller

This easy-to-use tool simplifies removal of corroded battery terminals. It incorporates a striking pad which enables the operator to drive the prongs under the cable connection and center it over the terminal. A few turns with the T-handle screw quickly removes the terminal connection without damage to the case. There are no jaws to adjust or apply. Once this puller is located under the cable connection it can't slip off. *Owatonna Tool Co, N Cedar St, Owatonna, Minn.*

New Sander

This tool, called Sand-O-Plane, has a flexible ball joint, and a disk that stays flat to the surface. Unit does not gouge work or leave swirls, for all disk points receive equal pressure. Used with ¼-in. electric drill. It sands in any direction of the grain. Horizontal and vertical grains may be sanded simultaneously. With a rotary plane action, Sand-O-Plane gives a smooth, level surface to glass, metal, or masonry. *Dola Corporation, 2635 Durfee Ave, El Monte, Calif.*



Valve Spring Compressor

This new tool compresses springs on Ford valve-in-head V-8 engines. No. 132 Ford Lifter has a hook that goes down through the pushrod hole where it engages the corner at lower end. Pressing down on handle compresses the spring and keepers are easy to remove. Made of cold rolled steel, the hook is heat treated for long wear by being cadmium plated. There is also a No. 133 Chevrolet Lifter which isn't interchangeable with Ford Lifter. *Zim Mfg Co, 3047 W Carroll Ave, Chicago, Ill.*

Slim Profile COE

"Sightliner" truck tractor has 48 in. bumper-to-back-of-cab dimension to haul maximum payloads. It is available in gross vehicle weight ratings from 24,000 to 30,000 lb—and comes in five wheel-bases: 98, 104, 116, 128, and 140 in. It is powered by heavy-duty V-8 gasoline or LP-gas, will be available with diesel power at an early date. Featured is increased visibility through addition of two tinted glass windows below regular windshield at about floor level. Unit's design permits: use of longer trailers without exceeding over-all restrictions; installation of longer bodies on straight trucks used to pull 4-wheel trailers; and increased payload weight on front axle. *International Harvester Co, 180 N Michigan Ave, Chicago, Ill.*

New Tilt COE's

One-piece tilt cabs come in three sizes: the COE-72 with sleeper; the 86-in. COE with larger sleeper; and the COE-54 without sleeper. The cabs go forward to a 55-deg angle, enabling both the engine and transmission to be easily lifted out. Two hydraulic rams, one on each side of the cab, tilt the cab forward. The rams are powered by a double-acting hydraulic pump, hand-operated by detachable handle applied at the right of the cab. Pumped up past the balance point, the tilted cab is held in place at 55-deg angle by a safety hook which secures the assembly. The main cab lock is a steel cam-action device, an additional spring-loaded safety hook doubly secures cab in its driving position. *Kenworth Motor Truck Co, Seattle, Wash.*

FULL-VISION SAFETY CAB with safety glass all around is standard equipment on the new Diamond T series. Windshield is one-piece "Solex" heat-absorbing, glare-resisting glass, and seats are fully adjustable in a range of four inches.

Diamond T Announces New Low-Cost Diesel Series

DIAMOND T'S NEW 923 series is claimed to sell for less than any competitive diesel of comparable size, power and specifications. Fuel costs for the 923 are less than for other diesels of its size, and it is expected that maintenance and operating costs will also be lower according to Z. C. R. Hansen, president of Diamond T. The standard model has a gvw of 29,000 lb, but with optional oversize front axles and tandem rear axles, gvw rating is extended to as high as 60,000 lb.

NEW CUMMINS DIESEL, the HF-6-B, is used in the powerplant of the new tractor. The engine has a displacement of 672 cu. in., and develops 180 bhp at 2100 rpm with a maximum torque output of 450 lb-ft. It has dual intake and exhaust valves (with stellite seat inserts) Tocco-hardened crankshaft with vibration damper, and seven main bearings of 4½ in. diameter with a total projected area of 61.15 sq. in. Crankpin diameter is 3⅛ in. Precision-type main and rod bearing shells are used.

The HF-6-B engine is naturally aspirated, features the Cummins PT fuel-injection system, and has replaceable, wet-type cylinder liners. A heat-exchanger oil cooler and fuel filter are provided. Two lubricating-oil filters, including an externally mounted 3-gal. deluxe air cleaner, are also included. According to the manufacturer, operators can expect to get about 300,000 miles before and between overhauls.

The standard specifications call for the Rockford 15TM clutch, which is a single-plate, dry disk type with a 15-in. diameter and 252 sq. in. of lining area. The Fuller 5A650 five-speed transmission with .86 overdrive is standard equipment. For highway service, the standard rear axle is the two-speed Eaton 18803, rated at 22,400 lb, with electric shift between the two ranges. Standard front axle is the Timken FD901, rated at 9000 lb. The new 923 is also available as a six-wheeler. A wide variety of options in axles and transmissions makes it possible to build a tailor-made truck which will precisely fit the job for which it is intended, whether for highway or off-the-road operation.

CHOICE OF THREE FRONT-AXLE POSITIONS is available on the new model. Standard position gives a 37-in. measurement from front of bumper to front axle; the "B" models have the front axle set back 11½ in. from the basic position (for dump and mixer operations); and the "F" versions of the 923 have a special flat front radiator construction with front axle set forward 1¾ in. from the basic position for a 29⅞ in. bumper-to-axle dimension.

LIGHTWEIGHT PACKAGE is another feature offered which, it is claimed, can result in a weight savings of 700 lb or more. The "package" includes a special, lightweight heat-treated alloy steel frame with aluminum cross members. Use of aluminum for bumper, fuel tank and supports, battery box, hood and radiator, axle hubs, transmission cases and wheels, further reduces chassis weight. Tubeless tires are furnished by the manufacturer at no extra cost.

Special attention is paid to cab seat construction. The driver's section is built of individual helical coil springs with a heavy vinyl plastic covering over a blanket of rubberized sisal and hair. Paint job is designed for maximum durability. It is an oven-baked synthetic enamel over a baked-on primer. The cab and all sheet metal are completely de-greased before painting.

Ratchet Driver

This standard M-100 set includes a quarter-inch drive handle, a sealed quarter-inch ratchet that has fingertip control for reversing, and a 3/16-in. slot screwdriver bit. The series includes slot screwdriver bits from 3/16 to ⅜ in. wide, and from 1⅝ to 3¼ in. long. Among the advantages claimed by the maker is the fact that it not only replaces many separate tools, but it also permits work in close areas. All ¼-in. drive attachments are interchangeable. *Herbrand Tools, Fremont, Ohio.*

Electric Vulcanizer

When using this vulcanizer, the repairman positions the clamp to the injury—not the injury to the clamp. Maker says shoulder and sidewall repairs are simplified and easily prepared through the clamp operation. Clamp is so placed that tire hangs in normal vertical position regardless of injury location. Special repair gum, called Camel Electro-Weld, has been formulated for proper filling of cuts and breaks to be cured. *H. B. Egan Mfg Co, PO Box 1406, Muskogee, Okla.*

Auto Warning Light

"Flashy," new auto warning signal, which plugs into vehicle lighter, provides a flashing red light that is visible for miles. Provided with enough cord to reach all parts of the vehicle, Flashy can be mounted on any automobile surface. Its strong suction cup fastens to any smooth, non-porous surface. Construction is water-tight and there is no metal to rust. Available for 6 or 12-volt battery system. Price $3.50. *A. G. Busch & Co, Inc, 6138 NW Highway, Chicago 31, Ill.*

Vapor Diverter

AC-GF-52 vapor diverter is a new device aimed at preventing engine-stalling vapor lock in gas-powered trucks and buses. It features a stand-pipe housed in a base casting and glass dome assembly. Diverter is fitted to fuel line directly next to carburetor. Return line is required to complete installation—¼-in. tubing extending from diverter's base back to fuel tank. Fuel pump sends gas to vapor diverter, glass dome serves as separation chamber. While liquid fuel is delivered to the carburetor, vapors rise above liquid level in glass dome. Vapors then are vented off and passed down stand pipe to return line leading to fuel tank. Stand pipe restricts "bleed off" of fuel other than vapors. *AC Spark Plug Div, General Motors, Flint 2, Mich.*

Portable Desk

This adjustable 8-in. by 12-in. writing platform, called "Vehicular Desk," has a 1-in. deep basket welded underneath. Three sides are enclosed—the fourth has a retaining spring to hold paperwork in place; removal of ballpoint pen from holder releases spring, and papers are easily accessible. Spring clip retains papers in delivery sequence. Mounting bracket is secured to dashboard and may be adjusted sideways, backward and forward. Indexing assembly permits 18-deg spaced positive-position stops for a full 90-deg up and down from horizontal or writing position. "Nite Lite" purchased as optional equipment. Price complete $24.00, singly. *Product Development Corp, PO Box 789, Norwalk, Conn.*

Batteries

CHARGER WITH DISCONNECT RELAY and reset timer. When battery is low, relay-timer battery-charger combination automatically charges battery at a high rate for a fixed period. Six to 32-volt dc output voltages are provided with a charging rate of 105 to 2.0 amperes (continuous adjustment). The charger is fused to protect components, and a meter to indicate charging current is provided. *Automatic Switch Co, Florham Park, N. J.*

TERMINAL COATING, in spray container, helps protect batteries against current leakage, acids and corrosion. Cables and terminals need only to be thoroughly cleaned and reassembled before a short spray with battery protector completes a waterproof, insulating seal that lasts 6 months to a year, maker claims. *Krylon, Inc, 18 W Airy St., Norristown, Pa.*

FAST CHARGER, called the "Minute Man," provides charging rates of 100 amps at 6 volts, 50 amps at 12 volts. Comes in small case weighing only 37 lb. Compactness is achieved by use of hermetically sealed silicon rectifiers. *Exide Automotive Div, Electric Storage Battery Co, Box 6266, Cleveland 1, Ohio.*

AMMETER KIT is designed for installation on late-model cars whose warning light, no-charge indicators don't show charging rate of battery-generator system. The ammeter is calibrated in 60-0-60 amp range with expanded scale between 0 and 30 amps for widest pointer swing. This indicates the charging current is actually reaching the battery. *Burton-Rogers Co, 42 Carleton St, Cambridge 42, Mass.*

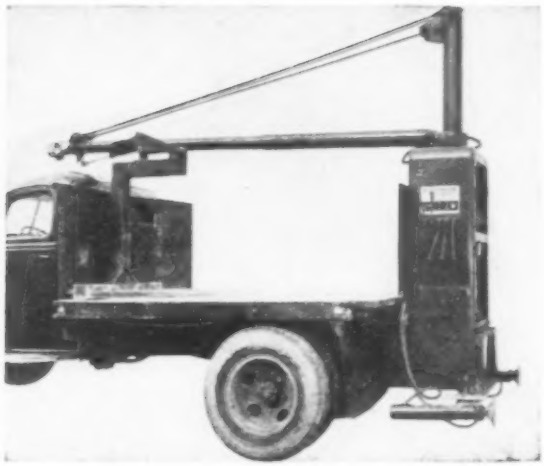
NEW CHARGER LINE includes models for 6-volt batteries at 3 to 20 amp rates, and for both 6 and 12-volt batteries at 4 to 80-amp rates. All models feature safety tapering of charging rate as battery becomes fully charged. Numeral-dial ammeter shows exact charging rate. Another feature is a built-in timer which shuts off the charge at a preselected time within a period up to 12 hours. *Schauer Mfg Co, 4500 Alpine Ave, Cincinnati, Ohio.*

INTERMITTENT CHARGER for wet batteries in storage. Named "Pulse," it automatically charges the batteries a few hours each week. Maker says it keeps batteries fully charged for more than a year and there's no need to add water. Model No. 112 maintains up to twelve 6 or 12-volt batteries or any combination of the two. *Fox Products Co, Philadelphia, Pa.*

BATTERY CHARGER, (Model 6126) charges 6 amps on 6 or 12 volts by flipping a switch. Charging rate starts at 6 amps on dead battery, tapers to 3 amps as battery becomes fully charged. Overnight delivery is up to 55 amp-hours. Maker says built-in automatic reset fuse can't harm battery. Dimensions are 7¾x7¼x6 in. *Electric Service Systems, Inc, 1330 Quincy St, NE, Minneapolis 13, Minn.*

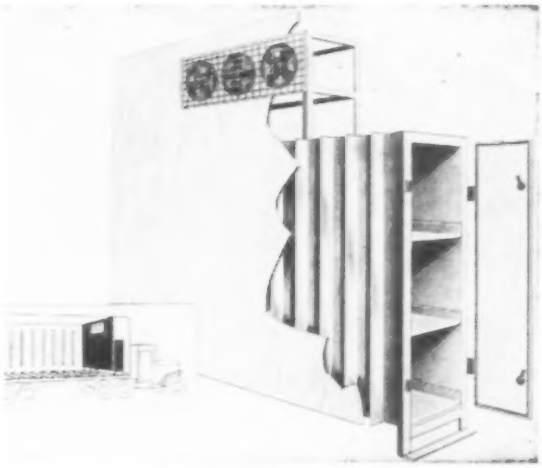
SILICON RECTIFIERS, for battery charger-testers. Only a fraction of the size of selenium rectifiers, maker says they accommodate up to 4500 times the amperage per square inch of surface. High efficiency at ambient temperatures up to 302 degrees F is of special significance for battery charger-testers where overload conditions are experienced. Hermetically sealed, the rectifier is protected against corrosive gases, humidity, oils. *Marquette Mfg Co, Minneapolis, Minn.*

"ARMOR PLATE" AROUND POSITIVE PLATES is claimed for new CA-300 batteries. The CA-300 substance is a combination of cobalt and arsenic to give protection against overcharge. Maker also says batteries accept a charge from generator more readily—which means quicker starts and more dependable performance. CA-300 is available in company's "Extra Life" and "Supreme Power" batteries. *Firestone Tire & Rubber Co, 1200 Firestone Pkwy, Akron 17, Ohio.*



Rear-Mounted Power Loader

New rear-mounted power loader is said to provide a boom with a greater reach, and 100% utilization of truck space. Its standard boom length of 12 feet, with optional 4 to 10 foot extensions, allows a 360-deg working radius up to 22 feet. Power loader is able to load or unload any material up to capacity of 4000 lbs. Truck frame is easily extended by rear mounting which provides greater loading space, and also permits driver to back right up to the loading site. Truck transmission supplies power to drive entire hydraulic system through standard pto. With optional remote control attachment, the driver is able to maneuver material into position while it is being loaded or unloaded. *Eversole Associates, Inc, 4231 Monroe St, Toledo 13, Ohio.*



Dry Ice Refrigerating Unit

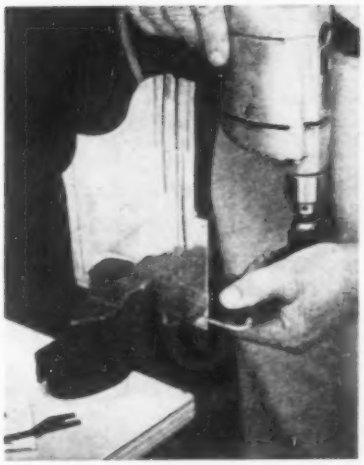
Air never touches the dry ice in this new Econo-Cold unit, and ice never touches the cargo. Dry ice is sealed in an aluminum unit and trailer air is cooled as it passes over aluminum surface. Forced air from three fans speeds heat transfer. Temperatures are thermostatically controlled, and maker says unit is suitable for wide variety of cargoes. In 3-day test run, with outdoor temperatures ranging up to 114 deg, a 34-ft trailer equipped with this unit carried 25,000 lb of frozen foods. Maker claims that recording graph placed at floor rear showed lading temperature remained between zero and plus 4 deg. Dry-ice content ranged from 1108 to 70 lb, but trailer temperature were practically unvaried. *Liquid Carbonic, 3100 S Kedzie Ave, Chicago 23, Ill.*

Protective Coating

Jennite J-16 liquid coating provides winter protection for asphalt and black top against frost action and damage from road salts and ice-melting compounds. Application seals out moisture and is said to prevent water absorption, thus reducing cracking and surface crumbling caused by thawing and freezing cycles. Also guards pavements against oxidation, solvent action of gas and oil, and drying effects of the sun. Applied by brush, squeegee or distributor truck. *Maintenance Inc, Wooster, Ohio.*

LP Gas-Fired Heater

LP-Gas cargo heater, Elston X-2000, is engineered and designed to control the temperature in truck vans up to 18 feet. It is designed to take a minimum of cargo space. Measuring 44 in. high, 11 in. wide, and 7 in. deep, it is light weight, easy to install, thermostatically or manually controlled and equipped with 100 per cent shut off, says manufacturer. Elston X-2000 complies with all ICC regulation. *Rue R. Elston Co, Inc, 2223-15 Ave, South, Minneapolis 4, Minn.*



Saw Blade

The new blade, capable of good cutting performance in stainless steel, is for use on portable high-speed reciprocating saws. Testing has also demonstrated its ability to make limited cuts in materials up to a hardness of 55 Rockwell on the C-scale, claims the maker. It is available in 5 sizes —with teeth-per-inch specifications from 10 to 32, and a usable cutting length of 1⅝ in. Used with the company's handy-angle reciprocating saw. *H. & T. Keesling Corp, P.O. Box 80, Hayward, Calif.*

Battery Tester

The 4-in. diameter dc voltmeter, known as Hoyt Tester No. 655, has an easy reading scale for precision testing of all 6 and 12-volt batteries. Scale indicates battery conditions by three simple tests; no-load method, load method using starter, and proper setting of voltage regulator. Among features are a needle sharp prod, adjustable from 2½ to 4½ in. for testing any cell of a 6 or 12-volt battery, and a bracket for hanging on filler box. *Burton-Rogers Co, 42 Carleton St, Cambridge 42, Mass.*

Oxygen Inhalator Kit

Known as the Oxy-Gear, this practical first-aid accessory can, in a few seconds, restore life-giving oxygen to the blood. Weight is only 9 lb. Patented control gage, with no moving parts, makes it impossible to inhale an overdose because of the regulated flow; and it shows oxygen remaining in the cylinder. Simple to use—just place mask on face and turn cylinder. Designed for motorists, truck drivers and emergency crews. Refills available. *Oxy-Gear Inc, 1020 N Rush St, Chicago 11, Ill.*

Tester Flashlight

Regular size flashlight, using two standard batteries, is also a circuit tester. It becomes a testing unit for various circuits in shop and garage when a 30-in. cord is plugged into the plug-in receptacle and clips are connected to the circuit to be tested. Without the cord, it can be used like any standard flashlight. Suitable for auto mechanics in checking timing, wiring, switches, and battery and generator connections. *A. V. Olson Mfg Co, 1608 Hollywood Way, Burbank, Calif.*

HAND CLEANER DISPENSER called Handi-Cleaner has lever to release right amount of cleaner. Disposable 5-lb can of cleaner is inserted to fill. *Banite Co, Buffalo 4, N.Y.*

MUFFLER CLAMP exerts leak-proof sealing pressure equally around enire pipe and muffler and when tightened forms complete 360-deg head. "Shur-Seal" saddle will not collapse when drawn tight. Circular channels on each side permit U-bolt to slide in easily. Available in seven passenger car sizes from 1½ in. to 2½ in., and in six truck sizes from 2½ in. to 4 in. *Merit Mufflers, Toledo, Ohio.*

PORTABLE MAGNESIUM YARD RAMP permits truck loading where permanent dock facilities are not available or where they're overtaxed. It moves on 16-in. semi-pneumatic tires and one man can position it for loading. The upper end is raised to proper loading height by a manual hydraulic lift, and a positive locking device secures it in place. Safety curbing prevents vehicle run-off. A tow bar is provided to allow handling by fork truck. Standard length is 30 ft, and capacities range from 6000 to 16,000 lb. *Lite-Line Metal Industries Div, Copperloy Corp, 4105 Brookpart Rr, Cleveland, Ohio.*

DRY-CHEMICAL FIRE EXTINGUISHER (Model PDC-2A), is effective on wood, textiles, flammable liquids, and electrical machinery. Said to have fire-fighting efficiency of four conventional 1-quart vaporizing liquid extinguishers. *American LaFrance Corp, Elmira, N. Y.*

REPLACEMENT PLASTIC LENSES are available in red and clear for passenger cars and trucks. Catalog sheets are available describing full lines of red lenses for stop and tail lights, clear lenses for parking, back-up and directional signal lights. *Auto Lamp Mfg Co, 2909 Indiana Ave, Chicago 16, Ill.*

EXHAUST-PIPE COVERS come in seven sizes to fit pipes or muffler up to 6¾ in. outside dimension. Wings of malleable iron may be bent to fit exact outside diameter of pipe within a certain range. *Waterloo Foundry Co, Inc, Waterloo, Iowa*

NEW TWO-SPEED SHIFT, air or hydraulic, gives fast, positive shifting. It is said to prolong life of rear end by preventing riding on edge of gear teeth. Prevents jumping out of gear and is not affected by moisture or freezing temperatures. New shift replaces electric shift without adapters in 20 minutes, plus air installation. It is also available in manual over hydraulic with no linkage. Can be installed without opening up the rear end. In case of power failure, unit locks in high and range. It shifts immediately, engaging the full width of gears. *Transport Equipment Co, 1535 University Ave, St. Paul, Minn.*

MUFFLER AND PIPE listings include replacements for 1957 model passenger cars, light and heavy-duty trucks, and farm tractors. *Merit Mufflers, 619 Smith St, Toledo, Ohio.*

AUTOMATIC OVERFILL-ALARM. Simple float mechanism activates gas-powered warning horn, instantly sounding continuous alarm audible up to one-half mile. Non-electric and non-pneumatic, the alarm is said to be entirely safe for all types of liquid handling throughout petroleum, chemical and transportation industries. *Falcon Alarm Co, Inc., Summit, N. J.*

LP-GAS METERING ASSEMBLIES, incorporating Brodie Bi-Rotor meter, strainer and differential valve—for use in loading facilities, tank trucks, fueling operations, and other bulk transfers—are available in models handling 30, 50, or 80 gpm. Larger sizes available for special applications. *Ralph N. Brodie Co, San Leandro, Calif.*

TRUCK MIRROR ASSEMBLY (Model No. 876, clear-vue, West Coast pivot type) is complete with four heavy-duty extension arms, heavy-duty brace arm, "C" frame and cab-mounting brackets. Mirror is fully adjustable and easily mounted to either side of truck. *Grote Mfg Co, Bellevue, Ky.*

PLASTIC REFLECTOR is said to be rust-proof and weather resistant and to have high impact strength. Plastic lens is fade-proof and shatter-proof, exceeds state and SAE specifications, maker claims. Lens diameter is 3 in., housing size is 3½ in. by 4½ in. *Plastic Corp, 524 N Elston Ave, Chicago 30, Ill.*

PLASTIC TARPAULIN. "Kar-Kap" is new heavy polyethelene plastic protector which slips over top of car and covers windows, preventing snow and ice from collecting. Made in two sizes to fit two or four-door cars, and station wagons. Price: $7.95. *Sterling Products Co, St Paul, Minn.*

AIR HORN, called "Lifeguard", is made of nylon, which maker says will not mar, dent or corrode. For truck and auto, it comes in 4 sizes, with horn bells 10 in., 12 in., 15 in., and 18 in. long. Can be mounted two or more horns together and operated as a single unit to give multi-toned warning. *Buell Mfg Co, 919 W 49 Place, Chicago 9, Ill.*

PLASTIC SKYLIGHTS, for trucks, now come in low-cost kit. Maker says they're leakproof and easy to install. Kits contain two skylights and everything needed for installation. Only tools required are an electric drill, hole saw and a soldering iron. *Trailmobile Inc, 31 & Robertson Ave, Cincinnati, Ohio.*

KING-SIZED VACUUM made possible with Pullman Drum Adaptor. Maker says it can be used for any job requiring large capacity. It mounts on 55-gallon drum, and cleans the interior of cars, including trunks, truck beds. *Pullman Vacuum Cleaner Corp, 25 Buick St, Boston, Mass.*

EXHAUST SYSTEM SEALER, called Acousti-Seal, is new self-drying asbestos compound said to effectively seal marred, rough or "out-of-round" connections and joints between old and new mufflers and pipes. *Walker Mfg Co, Racine, Wisc.*

SNOW-MELTING COMPOUND called "Melt" is said to be active at low temperatures where most ice melters are comparatively ineffective. Phosphate-type rust inhibitor prevents metal deterioration. Available in 25 to 500-lb containers. *Chem Industrial Co, 374 Ridge Rd, Brooklyn 9, Ohio.*

SNAP-ON TENSION RESTORER SPRING for windshield wiper arms. Manufacturer claims that the product is engineered and designed to create added tension, at same time it does not retard wiper action or place a strain on the mechanism. *Brasco Products, 2104 E 100 St, Cleveland 6, Ohio.*

SPLASH GUARDS are deep enough to check road spray and prevent damage to windshields of other vehicles, maker claims. These guards may be personalized by adding name of company in embossed white rubber letters. They include standard sizes 24 in. by 30 in. up to 24 in. by 36½ in. *Acme Rubber Mfg Co Div, Acme-Hamilton Mfg Corp, 115 Meade St, Trenton 3, N. J.*

SNOW-BLADE FOR WINDSHIELD WIPER can be quickly installed and removed. A new adjustable replacement arm applies the "ounce per inch" of pressure to any blade up to 16 in. long. New-type pressure indicator quickly discloses arm-pressure deficiencies and permits accurate adjustment of the new anti wind-lift arm to keep blade snug to the glass. *Anderson Co, 1075 Grant St, Gary, Ind.*

SAFETY SIGNS, that glow automatically from their own source of light, are made on heavy, durable, weatherproof, pressure-sensitized paper, with an adhesive back that readily adheres to metal, wood, etc. *M-M-A, Inc, Lancaster, Pa.*

WATER FILTER AND DESCALER removes rust, scale and corrosion from water jackets and radiators, and is said to prevent further deposits from forming. This Butler unit removes scale-forming minerals and excess oxygen from cooling system water by electrolytic action between two metallic elements. *E. V. Nielsen, 575 Hope St, Stamford, Conn.*

"Million-Mile Safe Driver" Reports:

"We Never Knew Tires Could Make Such A Difference In How Our Men Drive — Till We Put On ARMSTRONG S-D's"

One Million Miles of No-Accident Driving!

That's the record of Henry Mondscheim, left, now Fleet Superintendent for Yale Transport Corp., New York City. Right, Yale Executive VP Gerald W. Eskow. Yale Transport Corp. operates more than 400 units.

Yale Transport Diesel rigs now hold normal speed through what used to be 20 mile an hour areas—with safety and mileage both improved.

Can Armstrong Miracle S-D Tires cut route time? Yale Transport will tell you, yes! Will these tires win drivers' enthusiasm, step up safety, pile up extreme mileage? Ask Henry Mondscheim:

"These Armstrongs are the first tires all our drivers agree are far safer. Now they barrel through tricky stretches, knowing they can stop if they have to. They get more traction in rain and snow. Mileage is fine. Our high-torque Diesels burn up some tires, but these Armstrongs have plenty of tread left at the 75,000 mile mark. Our men and our records say, we've never had any tires perform like these."

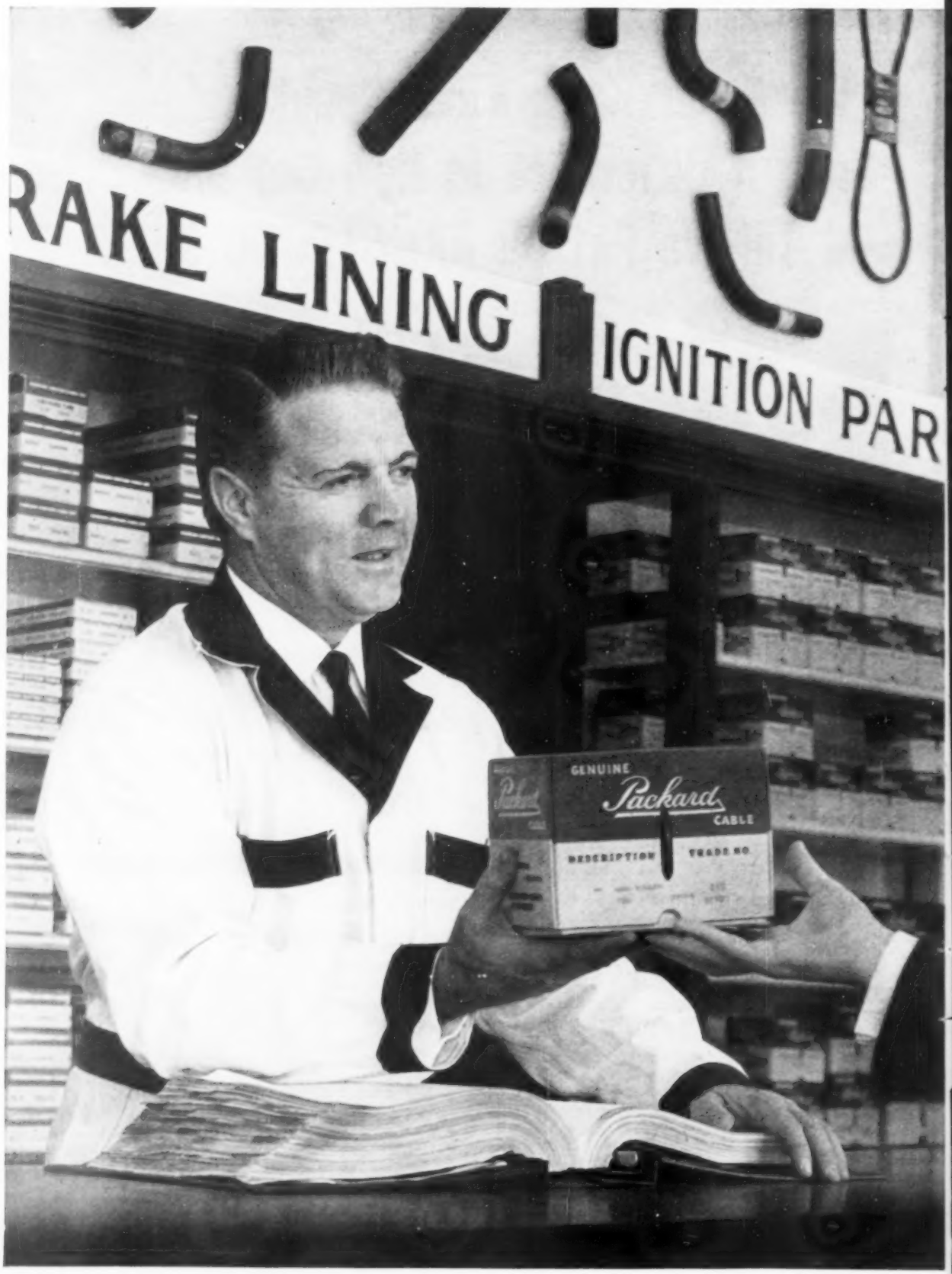
Armstrong's S-D tread (see diagram) is the first to win a U.S. mechanical patent in 18 years! It makes these tires "kiss the road" to give tremendous mileage – yet *grip* the road for real "stop and go". Run a test – learn, as Yale Transport did, how *different* a tire can be!

Exclusive interlocking sipes. Grip in all directions, yet "kiss" the road and leave it without fore-and-aft scuffing that is the main cause of wear.

Exclusive intratread bumpers. Keep tread open, yet prevent weaving under load or braking. Greatly reduce side-to-side scuffing.

ARMSTRONG *MIRACLE S-D* TRUCK TIRES

The Armstrong Rubber Co., Home Office, West Haven, Conn.


RAKE LINING
IGNITION PAR
GENUINE
Packard
CABLE
DESCRIPTION
TRADE NO.

Fleet operators prefer PACKARD CABLE because it delivers more miles of service at less cost per mile

It's a fact—Packard Electric cable leads in replacement sales to fleet operators because experience shows that Packard cable is more economical. It gives the greatest amount of miles and trouble-free service for the cable replacement dollar. Proof of this is the fact that the majority of maintenance award winners in the transportation industry use Packard cable.

Only Packard offers a complete line of automotive cable including engine compartment cable, T.V.R.S. cable in sets and bulk, high and low tension cable, original equipment battery cables and terminals.

Chances are you already use Packard cable. If not, you can be sure it is well worth investigating. There is a Packard cable that is made for your particular application no matter how demanding it may be. And it's available everywhere through the United Motors System.

Packard Electric

Warren, Ohio

"Live Wire" division of General Motors

"Translucent vinyl-coated nylon tarps handle easier, need little maintenance"

—says Mr. John F. Ernsthausen, President, Norwalk Truck Lines

"We selected vinyl-coated nylon tarps for their lightweight handling ease on about 400 of our trailers. Just one man can cover a truck. And freight handlers find loading operations improved, because these tarps let light through for increased visibility inside the truck.

"Coated nylon tarps are waterproof . . . rain and dew dry off quickly. They're dirt-resistant, too. Our Maintenance Department has never had to clean them. Since our switch to coated nylon, we've been able to trim man-hours devoted to tarp handling by one-third."

• • •

FIND OUT how coated nylon tarps can improve your fleet operations. Ask your fabricator or supplier for information, or drop a line to: E. I. du Pont de Nemours & Co. (Inc.), 5518 Nemours Building, Wilmington 98, Delaware.

DU PONT

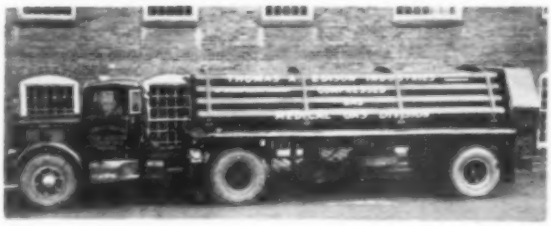
REG. U.S. PAT. OFF.

Better Things for Better Living . . . *through Chemistry*

COATED NYLON FOR TARPS—LONG WEARING . . . LIGHTWEIGHT . . . EASY TO HANDLE . . . WATERPROOF . . . RESISTANT TO ROT AND MILDEW

Aluminum rock body . . .

. . . is first of a series fabricated entirely from a special alloy plate and extruded sections. Built by the Heil Co., Milwaukee, the all-welded body has a capacity of 36 cu yd when heaped. It features heated floor construction, and rounded interior corners to prevent the adhesion of sticky materials. Maker claims that the advantages offered in operation offset the added expense of aluminum plate body. Among the advantages cited: increased payload; increased speed, allowing more round trips each day; reduced tire wear and gas consumption. The aluminum rock body is mounted on a special off-highway truck, with Heil heavy-duty telescopic hoist designed specially for off-highway use.



Bulk oxygen . . .

. . . is being delivered to hospitals along the eastern seaboard in these extra-long tube trailers. The deliveries are made by the medical-gas division fleet of the Thomas A. Edison Industries to hospitals with storage reservoirs. Brockway's new "Shorty" tractors haul the long-tube trailers. Each unit transports an oxygen volume (50,000 cu ft) equal to the contents of 200 conventional cylinders (244 cu ft each). Edison reports many economies through use of these tube trailers in New England, New York, and New Jersey. It is now possible to reduce handling operations, speed deliveries to such an extent that plans are under way to add additional units to this specialized fleet.

1958...a good year to look at Dodge

Since 1918 Dodge has been building trucks famed for ruggedness, long-life and dependability.

Now the new '58 *Power Giants*, climaxing 40 years of engineering knowledge and building experience, add still more high-service features . . . new engines and brakes, automatic transmissions, greater comfort.

Further, these new *Power Giants* are more readily available, in a wider range of "Job-Rated" variations and with greater parts and service convenience. A nationwide network of Dodge Truck Centers stock heavy-duty models, provide in-the-field conversions, offer easy-to-buy finance plans and carry a comprehensive stock of repair parts. There is a Truck Center convenient to your Dodge dealer.

Dodge trucks are built to haul loads of every description over good roads and bad in any kind of weather . . . dependably. Why not let your Dodge dealer show you how *your* job can be handled better, at a lower cost, by a "Job-Rated" *Power Giant?*

All in all, this is a good year to look at Dodge.

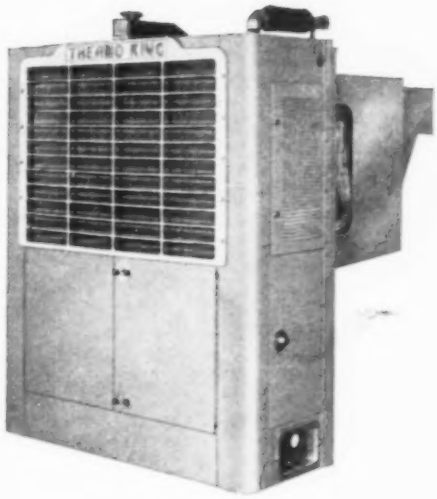
* * * * *

Power Giant News!

- G.V.W.'s . . . from 4,250 to 46,000 lbs. Some models increased as much as 4,000 lbs.
- G.C.W.'s . . . to 65,000 lbs.
- Engines . . . Sixes from 113 to 141 horsepower. V-8's to 234 horsepower, 354-cubic-inch displacement. Famous "Floating Power" engine mountings in low-tonnage models for unexcelled smoothness.
- New Torqmatic automatic transmission, with six forward speeds, hill retarder.
- New styling . . . new cab interiors . . . new transmissions . . . new bigger, more efficient brakes!

DODGE *Power Giants*

not an extra pound to spoil the picture



We mean your *profit picture*. When you are hauling payload, every pound counts.

Lightweight Thermo King hasn't an extra pound anywhere—some models weigh as little as 445 pounds.

Because it is made of tough, lightweight aluminum, because it is a single self-contained package, and because it is the most compactly engineered unit on the market . . .

THERMO KING

TRUCK REFRIGERATION

Weighs Less

NATIONWIDE SERVICE: Thermo King service stations on all important truck routes in United States, Canada and Mexico

THERMO KING CORP., 44 S. 12th ST., MINNEAPOLIS 3, MINN.

Records of truck operators show that reliable carburetion means greater operating efficiency at lower costs.

That's why so many cost-conscious fleet operators prefer Zenith* Carburetors and because service requirements are fewer, carburetor life is longer and fuel control far more reliable. They know that truck manufacturers using Zenith Carburetors have selected the finest product in its field.

When buying new vehicles or overhauling present equipment, your best assurance of complete carburetor efficiency lies in this fact —**Zenith has more experience in more fields with more engine types than any other carburetor manufacturer.**

*REG. U.S. PAT. OFF.

Zenith Carburetor Division

696 HART AVE., DETROIT 14, MICH.

Export Sales: Bendix International, 205 E. 42nd St., New York 17, N. Y.

Bendix AVIATION CORPORATION

FOR BETTER BRAKING–LONGER WEAR–FEWER BROKEN DRUMS–USE GREY-ROCK "TIMBER KING" BLOCKS!

The secret of "Timber King" is a woven block used in combination with the right molded block. A special weave provides slight compressibility, assuring full lining-to-drum contact, eliminating localized high temperatures. Zinc alloy wire in the woven block draws heat from the braking surface—helps "condition" the drum.

Many fleet brake problems can be licked with Grey-Rock molded blocks. But where braking conditions are severe—where something more rugged is needed—Grey-Rock "Timber King" molded-woven combinations are your best answer to heat fade, excessive wear, and costly drum replacement. See your jobber.

For Light Trucks...Grey-Rock Balanced Trucksets

They're special lining combinations—woven, molded and woven-molded combinations—engineered for light and medium trucks. You get more miles between relines, less drum replacement, lower maintenance costs—all adding up to lower cost-per-mile

Only **Grey-Rock** *makes*

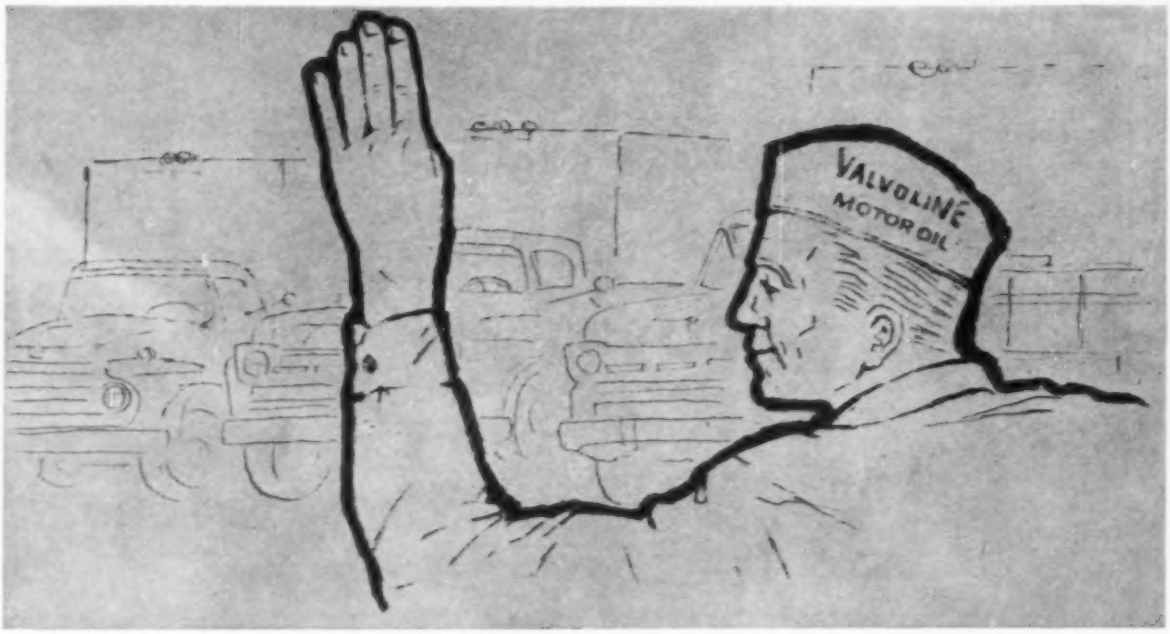
BALANCED BRAKSET LININGS

BALANCED BRAKSETS • TRUCKSETS • BRAKE BLOCKS • VEE-LOK® CLUTCH FACINGS

GREY-ROCK DIVISION of Raybestos-Manhattan, Inc., Manheim, Pa.

RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Mechanical Packings • Asbestos Textiles Industrial Rubber • Sintered Metal Products • Engineered Plastics • Rubber Covered Equipment • Abrasive and Diamond Wheels Industrial Adhesives • Laundry Pads and Covers • Bowling Balls

A CHANGE TO VALVOLINE



WILL SAVE YOU

- *down time*
- *shop space*
- *inventory investment*

NOW . . . one move to Valvoline's Fleet Program —will cut your lubricating overhead. You say how? That's a fair question. The answer is really simple.

How do you SAVE? It's easy to figure . . . By using the Valvoline Fleet Program you reduce your entire Lube Inventory saving space, handling expense and money tied-up in lubes. It speeds Oil Changes and Grease Jobs, thus saving TIME . . . which spells MONEY!

Don't delay! Write TODAY and see the facts on how the Valvoline Fleet Program will save you money.

VALVOLINE
OIL COMPANY • FREEDOM, PA.
Division of
Ashland Oil & Refining Company

"IT EVEN HAS AIR

For 1958!

Only GMC offers all this:

TRUCK AIR SUSPENSION
TORQMATIC DRIVE
HORSEPOWER with HORSE SENSE
SUPER-ECONOMY DIESELS
½ TON LIGHTER WEIGHT
PLUS-PAYLOAD 90" CABS

THE MIGHTY HAULER you see here – typical of GMC's 1958 heavy-duties – takes dead aim at big game.

It's built and equipped to force the greatest possible profit out of any haul. It knocks down cost which truckers long thought unavoidable–

New MONEY-MAKER engines bring horse sense to horsepower. They down-rate big power plants to easy-stroking capability – saving transmission and rear axles in the process.

Curb weights have been cut as much as ½ ton

SUSPENSION"

by wide use of aluminum to let you pack payload instead of dead weight.

AIR SUSPENSION models float a bounce-free load – and a delighted driver – in damage-proofed smoothness, freeing the whole rig from life-shortening shock and wrench.

TORQMATIC DRIVE models feed torque in velvet stages – that put gear ratios where power just overmatches load, no more and no less – where engine and transmission become downhill "brakes" on their own.

These GMC's are designed and built to the idea that operators are smart in spending an extra dollar to get back two. For nothing has been spared to make these 1958 GMC's the most able and the longest-lived trucks ever turned out.

Better call your GMC dealer now.

GMC TRUCK & COACH–*A General Motors Division*

GMC **AMERICA'S ABLEST TRUCKS**

AVAILABLE IN MODELS FROM ½ TO 45 TONS

The Only Safe Way

TO CHANGE TUBELESS TIRES

on Light-Duty Vehicles

Tire manufacturers' recommendations must be followed when mounting and demounting 14" and 15" tubeless tires on small commercial trucks and other light-duty fleet vehicles. These include the use of an approved lubricant.

RuGLYDE is THE approved tire lubricant—the only rubber lubricant that speeds and simplifies tire changing without endangering the air seal, rubber or paint finish in any way! RuGLYDE permits perfect bead seating—prevents "after-slippage" and tire "thumping"—and will not induce rust.

and Large Heavy-Duty Trucks

The need for RuGLYDE for larger truck tubeless tires is even more urgent. Applied to bead and rim, RuGLYDE eases the difficult job of seating the tighter and heavier bead on the tapered rim . . . prevents scuffing . . . protects the air seal. A "must", too, for tube and flap assembly.

RuGLYDE is also an ideal "cleaner" for making tires and rubber accessories look new. Use on lube-rack, too. Its deep penetrating action makes it unexcelled for squeak-proofing rubber parts and fittings.

See your jobber or write

AN AGS PRODUCT

R-338

AMERICAN GREASE STICK COMPANY
MUSKEGON, MICHIGAN

Power-clean

motors, chassis ...with the new Oakite HURRICLEAN steam-detergent gun

Just aim at dirt ... and it's gone!

The new Oakite Hurriclean gun sends a jet-blast of steam charged with Oakite detergent, that rips loose the gummiest soil and floats it away. No groove is deep enough to hide dirt and grease from this onslaught of heat, pressure and detergent. It's heavy-duty mechanized cleaning...yet you've never handled a unit so safe, light and easy.

SAFE Steam travels in an inner, insulated tube. Outer tube conveys the cool detergent solution. Mixing takes place at the nozzle. This ingenious design keeps the gun always cool to the touch, always safe.

LIGHT The Oakite Hurriclean steam-detergent gun weighs a mere 6¼ pounds!

EASY A twist of the tube grip changes direction of the spray. No dragging and kinking of hose lines. Cleaning "from under" is a cinch.

Just try handling the remarkable Oakite Hurriclean Gun. Ask your local Oakite Technical Service Representative for a demonstration, or write for details to Oakite Products, Inc., 26D Rector Street, New York 6, N. Y.

SPECIALIZED INDUSTRIAL CLEANING
OAKITE.
MATERIALS · METHODS · SERVICE
SCIENCE

Export Division Cable Address: Oakite

Technical Service Representatives in Principal Cities of U. S. and Canada

There isn't a load
or a road
too tough for

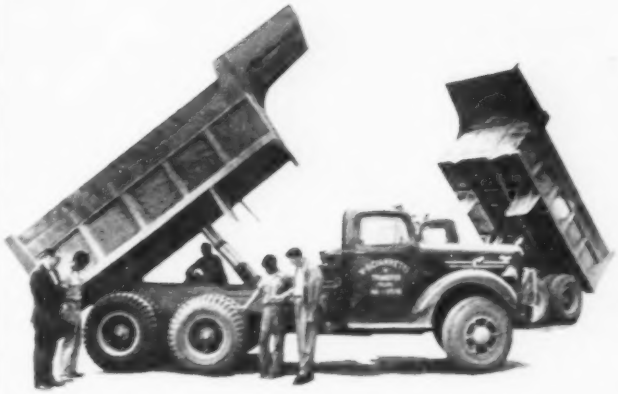
KELLY
NYLON CORD TRUCK TIRES

Buy Kelly Nylons and you'll say "good-by" to tire troubles—and save money, too!

Kellys are the toughest tires money can buy. They're engineered and built to resist the strains and hazards of today's trucking conditions. That's why so many truckers report that they've never had a blowout with Kellys!

What's more, Kellys give longer mileage on the original tread and take more recaps to boot! For long, dependable service and true economy, Kellys are tops!

So, no matter what type of tires you use—for small trucks or large trucks, for on-the-road or off-the-road equipment—it will pay you to get the facts about Kelly Nylons. See your nearest Kelly Dealer, or write to: The Kelly-Springfield Tire Company, Cumberland, Maryland.



No more tire failures . . . on-the-road or off-the-road!

"By switching to the Kelly Nylon Dual Trac, we have not only eliminated costly tire failures and down-time caused by impact breaks and blowouts, we have also found a tire which performs efficiently and cuts tire costs—both over the highway and in the most difficult off-the-road conditions."

James A. Sciarretti, Manager
Sciarretti Transfer, Pittsburgh, Pa.

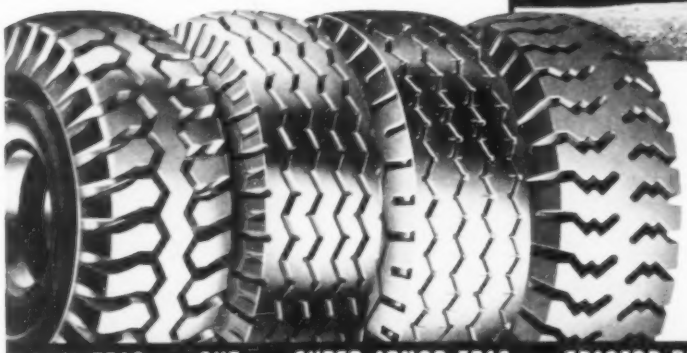
THERE'S A TOUGH KELLY FOR EVERY TRUCKING JOB!

KELLY *Springfield* **TIRES**

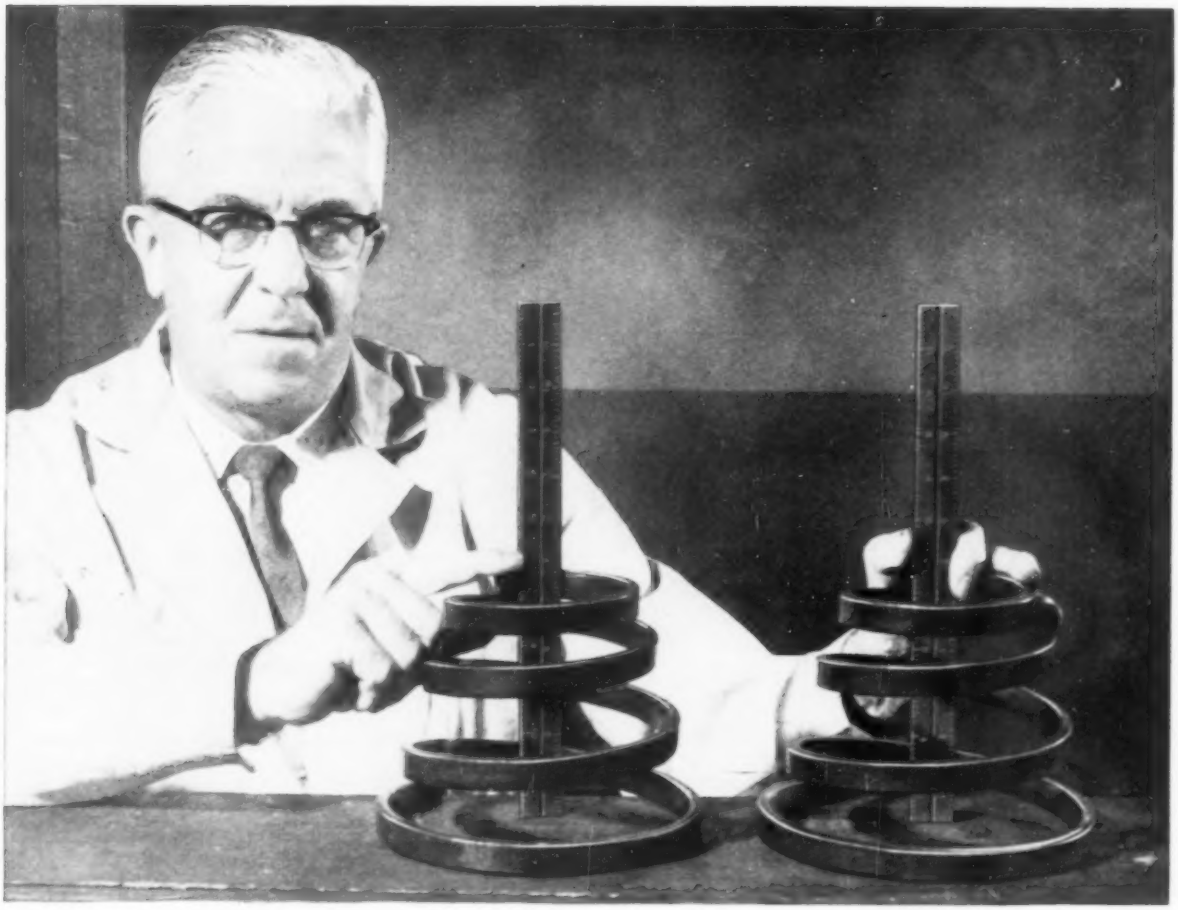
Amazingly long wear . . . on tough logging operations!

"Using Kelly CHT Nylon Cord Tires we have recapped some casings as many as five times. The resistance of Kelly Nylons to abrasion and the length of wear they give are amazing, even over our tortuous, crooked, hilly and rock-strewn routes."

Vincent Pierson, Partner
Pierson and Moore, Crescent City, Calif.



DUAL TRAC **CHT** **SUPER ARMOR TRAC** **TRACTOR RIB**



These Clutch Springs Look Alike, But . . .

One's as springy as a mountain goat, the other limp, soggy and faded.

Clutch springs, like people, grow tired under heat. They become limp and *faded*. The term "fade" means loss of spring pressure. That reduces the torque capacity of the clutch. The clutch begins to slip. Its life is reduced by 20 to 30 percent.

Most field rebuilders lack the data and equipment necessary to check spring fade. If the spring *looks* okay, it *is* okay, so they claim. Here, at Lipe-Rollway, we know better. The springs in all Lipe Guaranteed Clutches have passed rigid inspection to make sure the spring-weight gives proper pressure.

This means you get longer clutch life and lower cost per mile of operation.

All Parts in All Lipe Clutches Must Conform to the Same Material and Precision Standards

From our experience in supplying clutches to 54 makers of heavy-duty equipment, comes the know-how that goes into the manufacture of the Lipe-Rollway Guaranteed Clutch. That is why we can unconditionally guarantee our product to be unequalled by field rebuilders.

Look for this red and white Factory Seal when you take delivery on a Lipe Guaranteed Clutch for replacement service. It is your assurance of long, trouble-free life and *big* long-run savings!

SEND FOR OUR FREE "Clutch Facts" Booklet

Tells how to get more life from your heavy-duty clutches and what to look for when replacing them.

Lipe-ROLLWAY
CORPORATION
SYRACUSE 1, N. Y.

Community Must Foot Bus Bills . . .

. . . when essential commuter and passenger services can't pay their way. This is one of the conclusions of the New England Governors' Committee on Public Transportation in its Report No. 10—the last in a series.

Private car competition (intensified by heavy subsidies such as expenditures on highways and traffic control) makes it impossible for some essential passenger services to pay their way, says the report. These services must be maintained through expenditures other than passenger fares.

Public assistance, in the form of property and excise tax relief is recommended in order to prevent deterioration of urban areas dependent on those passenger services. Specifically recommended are repeal of the 10% federal tax on passenger transportation, and the 3% federal tax on freight. Within New England, state laws should be re-examined, says the report, with a view to greater uniformity of carrier taxation and elimination of inequities.

New urban road facilities should be designed for use by public as well as private vehicles, the report continues. Such design is frequently possible with little increased cost, without impairing efficiency, and with a substantial increase in passenger-carrying capacity. The committee urges maximum possible use of public transportation because of its efficient use of limited space.

Best selling points for public transportation, according to the report, are convenience, frequency of service, speed and comfort. A "good buy" from the rider's standpoint is no longer gaged by cost per trip or mile. This is indicated by the swing toward private cars. Therefore, the "public transportation package" must be kept sufficiently more attractive than the "private car package" to persuade a sufficiently large number of people to buy it.

Will New Roads Be Adequate?

THEY MAY BE OBSOLETE within the next ten years, according to Guy W. Rutland, president of American Trucking Assns., speaking at a recent meeting of the Virginia Highway Conference. (For more on this subject, see editorial, Nov '57, p 55).

"We often hear the new highways described as 'ultra-modern expressways, the highways of the future' . . ." said Mr. Rutland. "Actually, they're being built to specifications of a number of good highways in existence today. Supposedly they will handle the volume of vehicles we are supposed to have in use in 1975."

But, he continued, predictions of this kind have almost always been too conservative, and there's no reason to think this is not the case now. He urged that realistic steps be taken now toward planning future roads.

HRC* + X = EIS

*Heat Resisting Compound

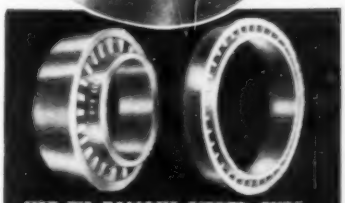
"E" Series CUPS WITH XPANDERS..

THE DOUBLE INSURANCE YOU NEED TO MAKE WHEEL CYLINDER WORK SAFE!

HRC – stands for Heat Resisting Compound! X – stands for Xpanders! Add them together and you have the PLUS factor needed to make modern wheel cylinder work completely safe!

Because of higher speeds, faster stops and higher brake drum temperatures, most 1956-'57 and '58 cars come with Xpanders. EIS makes them in all sizes for use on every job. ALL EIS WHEEL KITS AND CYLINDERS COME WITH "E" Series CUPS. Write for literature.

EIS AUTOMOTIVE CORP.
Middletown, Conn.
The "Complete Brake Parts Line" of Wheel Cylinders, Master Cylinders, Kits, Tools, Equipment and SAE Brake Fluids.



USE EIS FAMOUS RIBBED CUPS where applicable on Chrysler Products and many truck wheel cylinders. They're furnished on all EIS master cylinder pistons — in kits or cylinders.

EIS PLAIN CUPS with heavy walls and wide flares are available to those who still want them. They're moulded of HRC*, of course!

NEW!

EIS Filler-Type CUPS with Xpanders for vertical-mounted cylinders.

ASK YOUR JOBBER ABOUT ALL EIS CUPS!

Rigid quality control
in manufacturing the
Wagner
ROTARY
AIR COMPRESSOR
and other air brake components improves operating efficiency and service life

The superior operating features of Wagner Rotary Air Compressors are directly related to Wagner's Rigid Quality Control manufacturing program. Rigid quality control throughout every stage of manufacturing is an important reason why owners have so little trouble when the compressors are put into operation. At the factory every unit must pass careful inspection and run-in tests to assure that each compressor provides an adequate supply of air pressure at all times, with fast air recovery; and can provide safe, dependable performance and long service life.

If service should be needed—the entire compressor can be completely disassembled, serviced and put back into operation in a few hours right in your own shop. Wagner factory service branches in 23 major cities and the vast network of Wagner Air Brake Distributors throughout the United States and Canada are near at hand to serve you promptly and efficiently on any air brake need.

Remember—when ordering new equipment, be sure to specify Wagner Air Brakes.

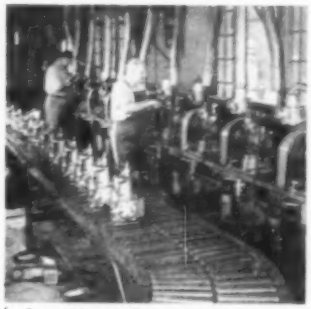
1. Accurate machining assures the smooth, cool operation of the Wagner Rotary Air Compressor. Close dimensions on all planes of the rotor eliminate vibration . . . permit compressor blades to function smoothly at high speeds.

2. Accurate machining and gauge testing of the stator, as well as the rotor, also contributes to the rotary compressor's ability to operate for long periods of time without developing leaks or losing efficiency.

3. Compressor shafts are given the "cold box" treatment. When exposed to very low temperatures, the shaft diameter contracts. This altered shaft diameter allows proper insertion into a heated rotor to form a strong, composite unit.

4. Compressor rotors are subjected to high oven temperatures to expand rotor diameters. Shafts and rotors joined together under these extreme conditions resume their original relative size to create an extra strong assembly.

5. Assembled rotary compressors are hooked up to air lines and operating air pressure is applied for leakage tests. While holding pressure, entire compressor is submerged to determine whether any air is escaping.



6. Every Wagner Rotary Air Compressor is given a rigorous "run-in" test to determine its resistance to overheating and its over-all performance. Running temperatures, vibration, noise and air output are carefully noted and analyzed.

WX50-1

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Truckers Prepare for Seaway Boosts

ONE OF THE BIG PROBLEMS facing Midwestern truckers will be how to take advantage of the increased business expected to result from the construction of the St. Lawrence Seaway, according to John N. Bauman, president of White Motor Co. Heavier trucks capable of carrying greater quantities at less cost are going to be required to replace vehicles made obsolete by the approaching boom, Mr. Bauman believes.

"Currently, the White Motor Co. is developing bigger trucks able to make faster schedules with increased fuel economies to meet the challenge of a much greater expansion in truck transportation that lies ahead." Mr. Bauman announced recently. "The new Seaway will provide a strong impetus to this expansion."

An increase of 20% . . .

. . . in freight shipments to and from the Great Lakes area will take place within the next three years, Mr. Bauman predicts.

"An increase of 20% may be on the conservative side," he adds. "If we knew what the schedule of rates will be for moving freight via the Seaway, we might have a better idea of how much additional freight business will be generated in this region."

This is the consensus . . .

. . . of opinion prevailing among the leading trucking firms and shippers in Cleveland, according to Mr. Bauman. Although the St. Lawrence Seaway's opening is planned for 1959, trucking companies in the area plan to increase their fleets now.

Hauling will be stepped up . . .

. . . to about 15-million tons in and out of Cleveland by both common carriers and private fleets if the increase is proportionate, says Bauman. Currently, around 12-million tons enter and leave the city annually.

Goods destined for foreign countries are presently hauled overland to the eastern seaboard. Cleveland should pick up much of this traffic.

4 easy, accurate, on-the-spot ways you protect engines from lubrication breakdown with new, amazing

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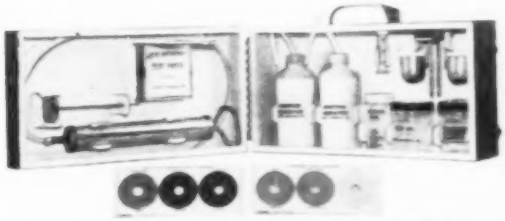
SIMPLEX

OIL TEST KIT

(Pat. pend.)

4 easy tests checked on job in 5 minutes—cost pennies

Now . . . the oil testing kit developed for and used by the U.S. Government to protect expensive engines is available to operators of all gasoline or diesel powered equipment. These are simple, accurate tests . . . made on the job, to keep engines on the job. This kit enables anyone, even without technical training, to immediately determine the presence of damaging contaminants in used engine lubricating oils . . . on the spot . . . in 5 minutes . . . for pennies per sample . . . accurate to A.S.T.M. standards!



CHECK *fuel dilution of your oil by your standard sample.*

1. **DETECT OIL DILUTION BY FUEL . . . prevent engine wear!** Laboratory tests prove that engine wear increases appreciably when SAE number goes down even by one grade. Use "SIMPLEX" test to compare the amount of dilution in a sample of used engine oil with the standard new oil sample by watching the flow of the two oils. Fuel dilution can indicate "too rich" carburetor, faulty fuel injector, faulty choke, or leaking fuel lines.

CHECK *acid pH of your oil our easy way*

2. **MEASURE ACID CONTENT OF OIL . . . avoid corrosion of parts!** A harmful acid condition of oil—injurious to piston rings, cylinder liners, bearings and other parts—is quickly detected by a simple color comparison test which tells the pH or acid measurement of the oil. Excessive acid can indicate faulty thermostat and engine running "too cool," not enough anti-acid additives in oil, or use of fuel with "too high" sulfur content.

CHECK *dirt and abrasive content of your oil by our simple test*

3. **SPOT SEDIMENT, SOLIDS IN OIL . . . stop abrasive damage!** The amount of solid contaminants which form in oil and deposit on abrasive sediment on parts is rapidly measured the SIMPLEX way. Samples of the oil are placed on special absorbent papers . . . and the color of the deposit compared with standard colors. Excessive solids can indicate high piston ring or cylinder wear—allowing carbon to "blow by" into crankcase oil, clogged or insufficient size oil filter, or poor fuel combustion.

CHECK *water in your oil the easy way*

4. **DETERMINE WATER IN OIL . . . end harmful results!** Large amounts of water in oil which can be damaging, can readily be detected in the test for solids (No. 3 above). A definite ring will form when the water content is above 2%.

Reduce costly overhauls and down time with

SIMPLEX OIL TESTING KIT

(Pat. pend.)

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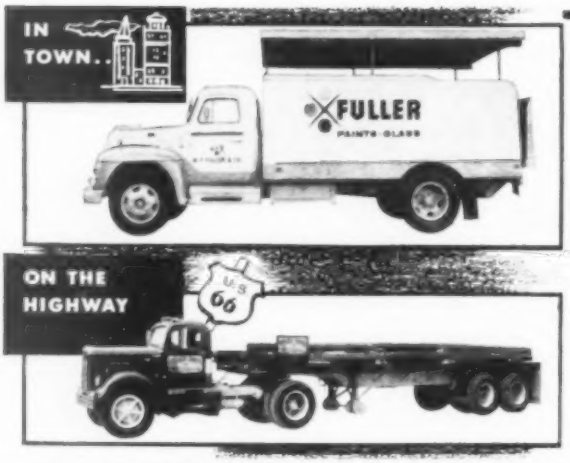

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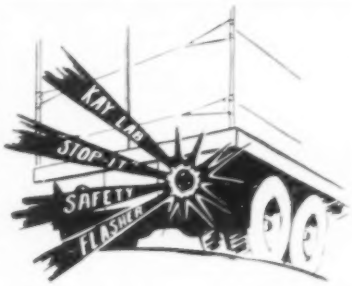

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Write for Folders, prices and name of nearest Jobber

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Bus Fleet Builds Future Good Will

ONE OF THE PRIMRARY problems of industry leaders in transportation is finding good mento fill the expanding ranks of drivers, maintenance and office workers. Possibly you've been getting along on a day-to-day basis, and haven't really looked to see if there might be anything you could do about tomorrow.

Public relations-minded fleets have realized that now is the time to make it easier to hire ten years from now. One fleet which is doing something about getting youth interested in transportation—and, at the same time, giving them an informed picture of the industry—is Niagara Frontier Transit System, Buffalo, N. Y.

Niagara Frontier is cooperating with Bishop Fallon High School to give economics students an inside look at how a bus fleet functions.

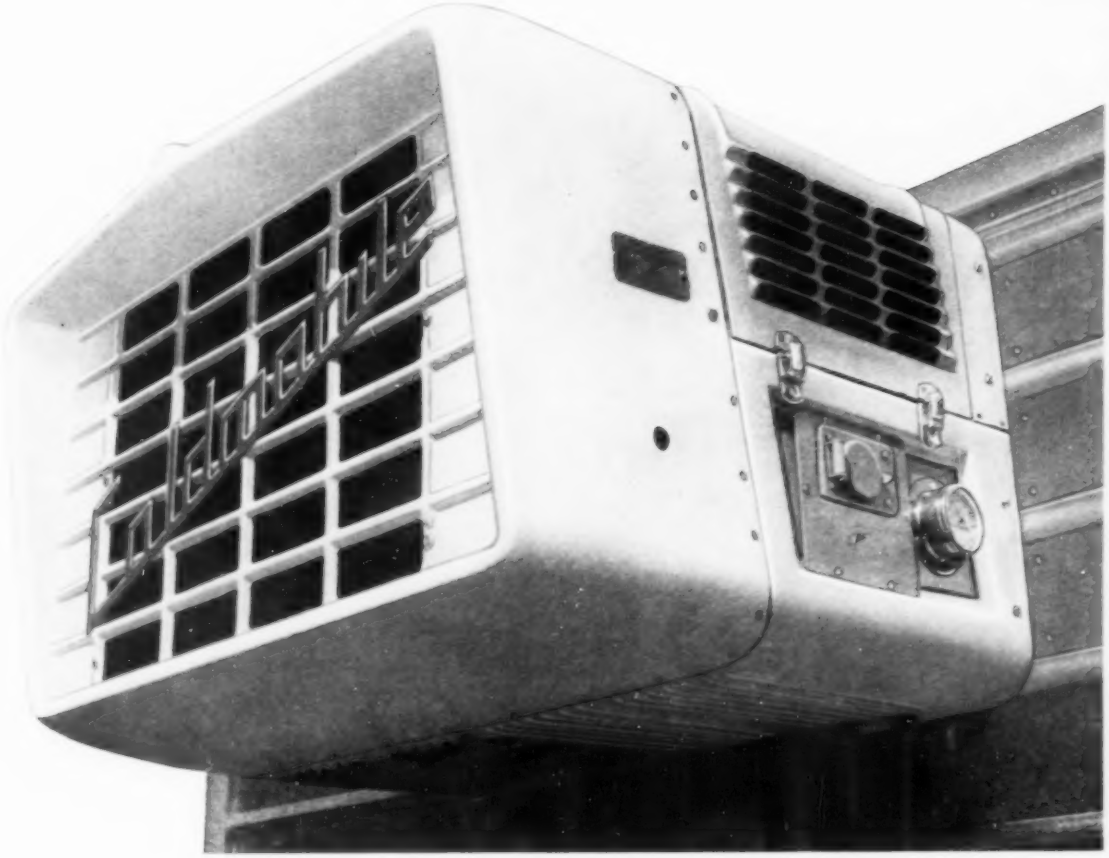
The idea started with one of the instructors, Father Joseph C. Rheault. He found in studying transportation and industry, the text book did not give his students a complete picture.

"Actual participation in company affairs was a means I thought would afford an opportunity of teaching investment material throughout the year."

When he went to Niagara Frontier with the idea, management went all out to help him. It was arranged to have students visit the company.

Interest was so strong that the students purchased one share of NFT stock, which made them partial owners of the company.

Results of this "initiation" have been more than better-educated students. Several have expressed a new-found interest in transportation, have even said they want to make it a career. The other students will be future voters with a clear picture of what transportation legislation really means.



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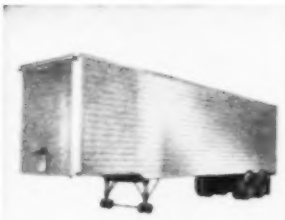
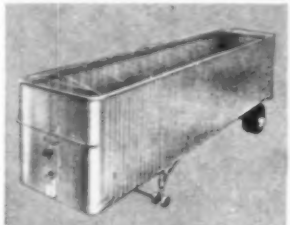


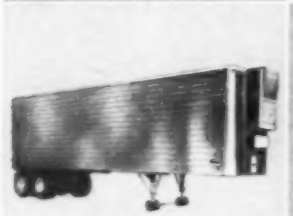
low-cost smooth panel aluminum volume★vans

lightweight corrugated aluminum volume★vans

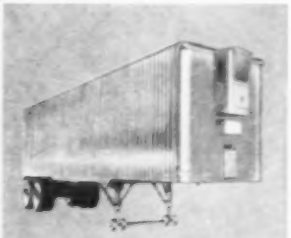


rugged corrugated steel open tops

corrugated and exterior post aluminum open tops



feather-light aluminum volume★van reefers



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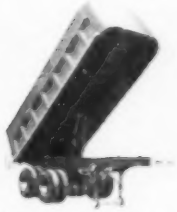

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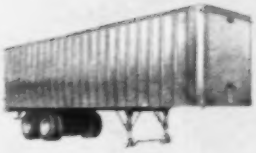
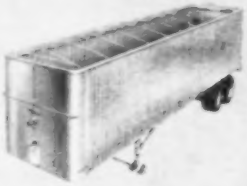


husky exterior post aluminum volume★vans

durable stainless steel volume★vans



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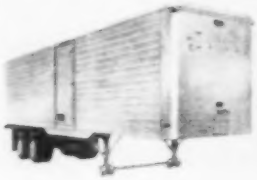
new double or triple-decked "Cattle Cruisers"

spacious furniture mover's volume★vans

husky, maneuverable city delivery vans



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lightweight aluminum fruit hauls

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specialized stainless steel chemical tanks

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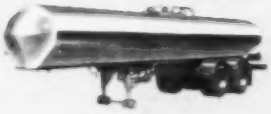

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low-cost lightweight platforms

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rugged stationary gooseneck carryalls

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Vehicle-Radio Bugs Can Be Spotted . . .

. . . and stopped, if you know what the causes are, according to Champion Spark Plug Co. Champion says that the radio antenna acts as a transmitter of "underhood" disturbances.

Installation of radio . . .

. . . may require complete shielding of the ignition system, to fully eliminate major sources of interference. But there are other problems. Noise in any part of the vehicle may be a cause of interference. Champion suggests that users try these answers:

• *Ignition noise* — a popping sound varying in frequency with engine speed, which disappears when ignition switch is turned off. This can be confined to engine compartment by bonding (or grounding) of the hood, steering column, etc. Many vehicles use suppressors in the motor, distributor center lead, or the cables. These should be in good condition.

• *Generator noise*—a high-pitched whine in the radio which varies with engine speed. It will persist if ignition is cut off while the engine is running at moderate speed. This may be corrected by the use of a bypass capacitor between the armature terminal and ground—don't connect it to the field terminal.

• *Generator-regulator noise*— an irregular, rasping sound traceable to arcing contacts. It will not persist below the charging cutout point of the regulator, can be stopped by a by-pass capacity or at battery terminal.

Static collectors in hubs . . .

. . . or special graphite anti-static powder can solve front-wheel noise, which is a popping or "rushing" sound that disappears with application of brakes.

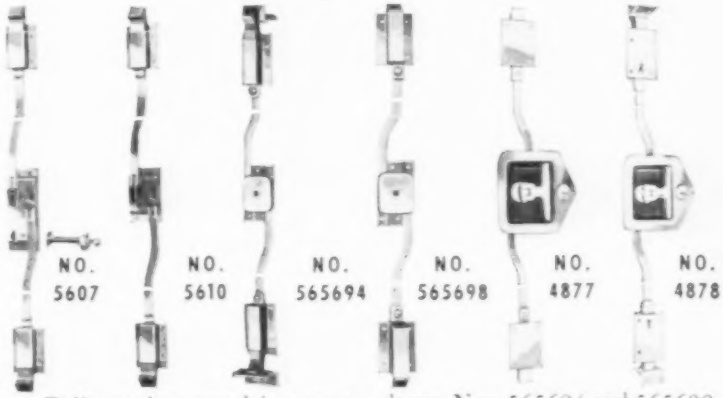
Gas-gage noise—a hissing or crackling, caused when gasoline level is disturbed by bouncing of vehicle—can be suppressed by a condenser connected across the gage-resistance element to ground.

But always remember . . .

. . . while the antenna must not be grounded, the lead-in shield should not be broken and must be properly grounded at both the antenna and radio chassis.

If noise disappears when the antenna is disconnected at the radio, it indicates that the antenna is picking up interference. If noise still persists, it is probably being transmitted to the radio via the power lines. This necessistates installing a by-pass condenser from "A" lead to ground.

Champion warns against jumping to conclusions, and suggests you check these sources of interference before assuming additional suppression is needed in the secondary circuit. It could mean a big saving for you.



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Nos. 5607 and 5610 for heavy doors, Nos. 565694 and 565698 for medium doors, Nos. 4877 and 4878 "Recesso" locks (with recessed folding handles) for compartment doors of tank and utility bodies.

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Write for further information about Profit-Tested Washing.

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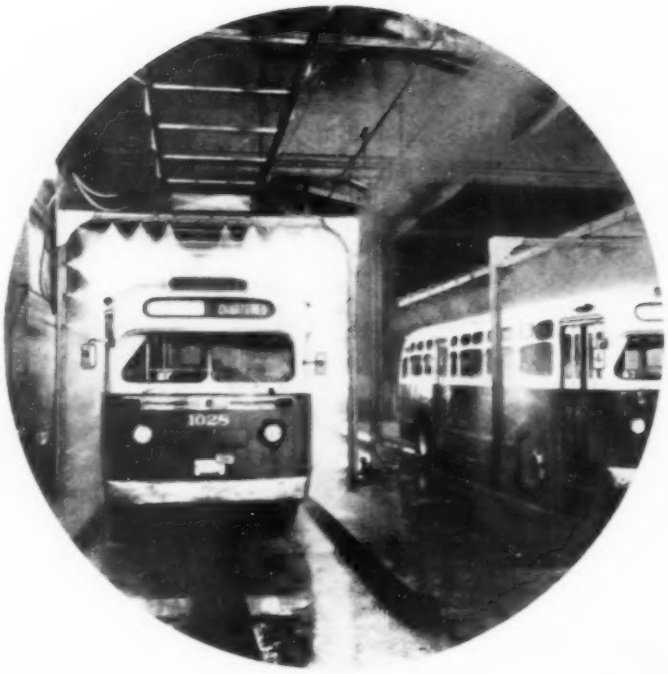

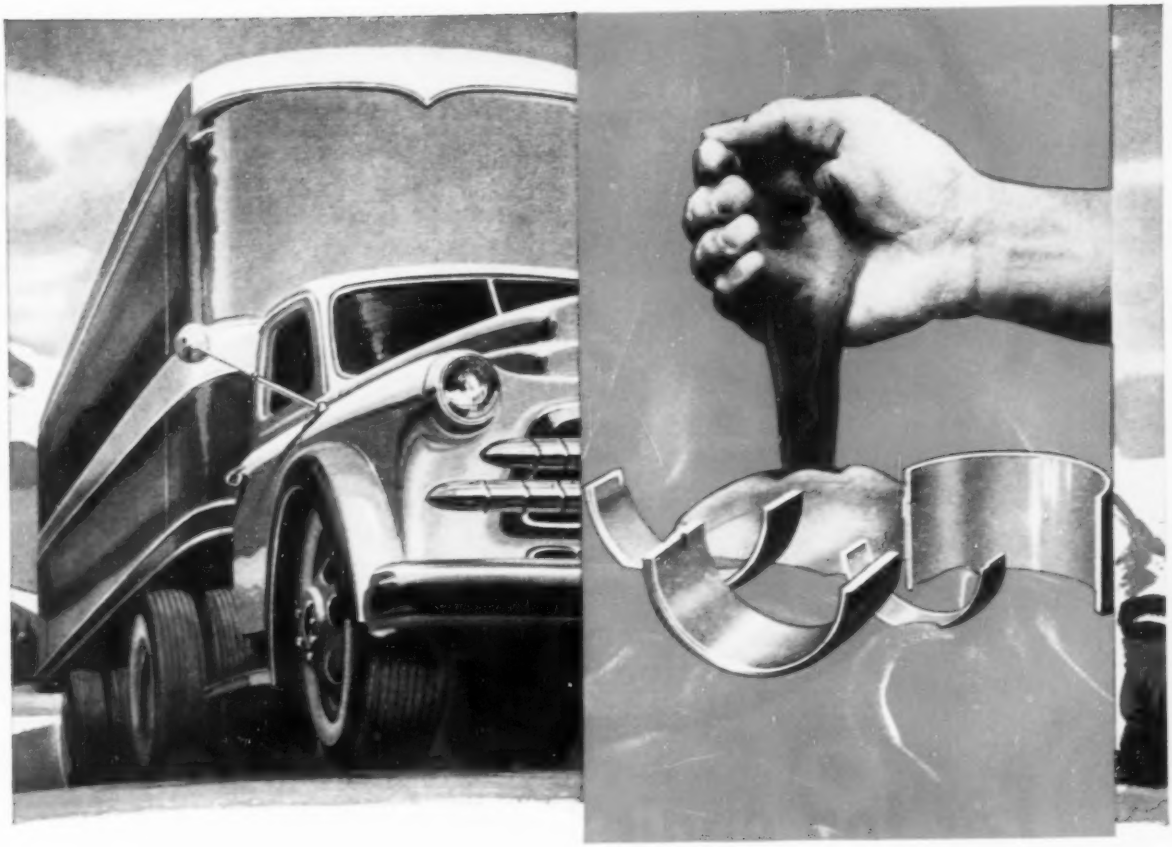

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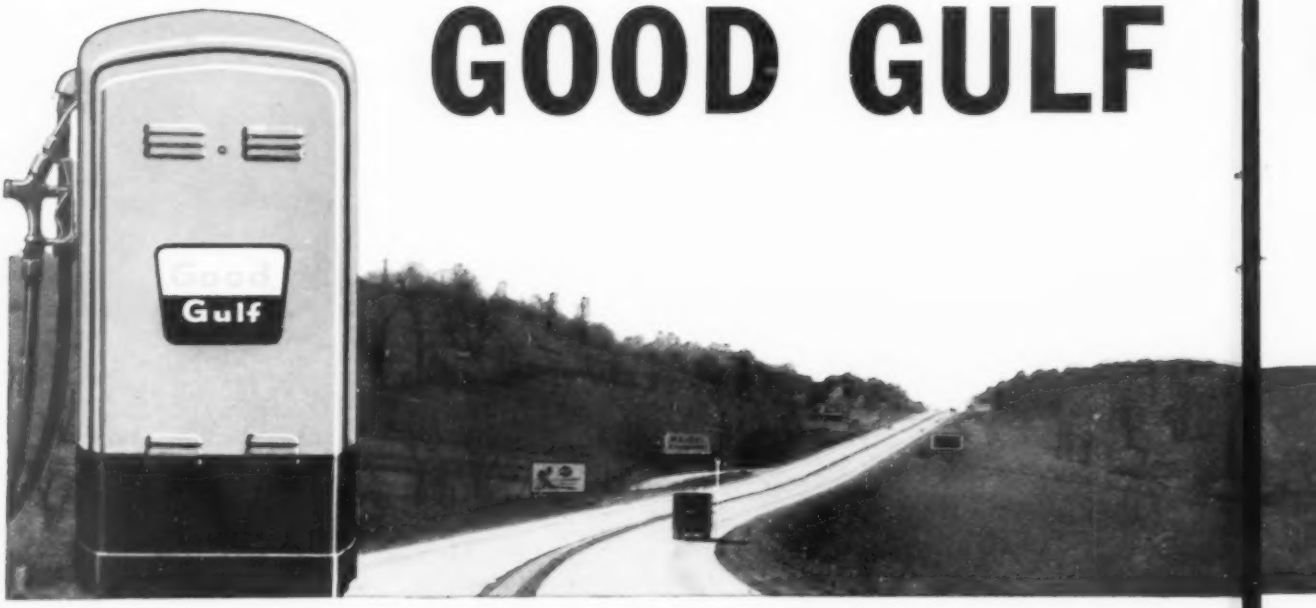
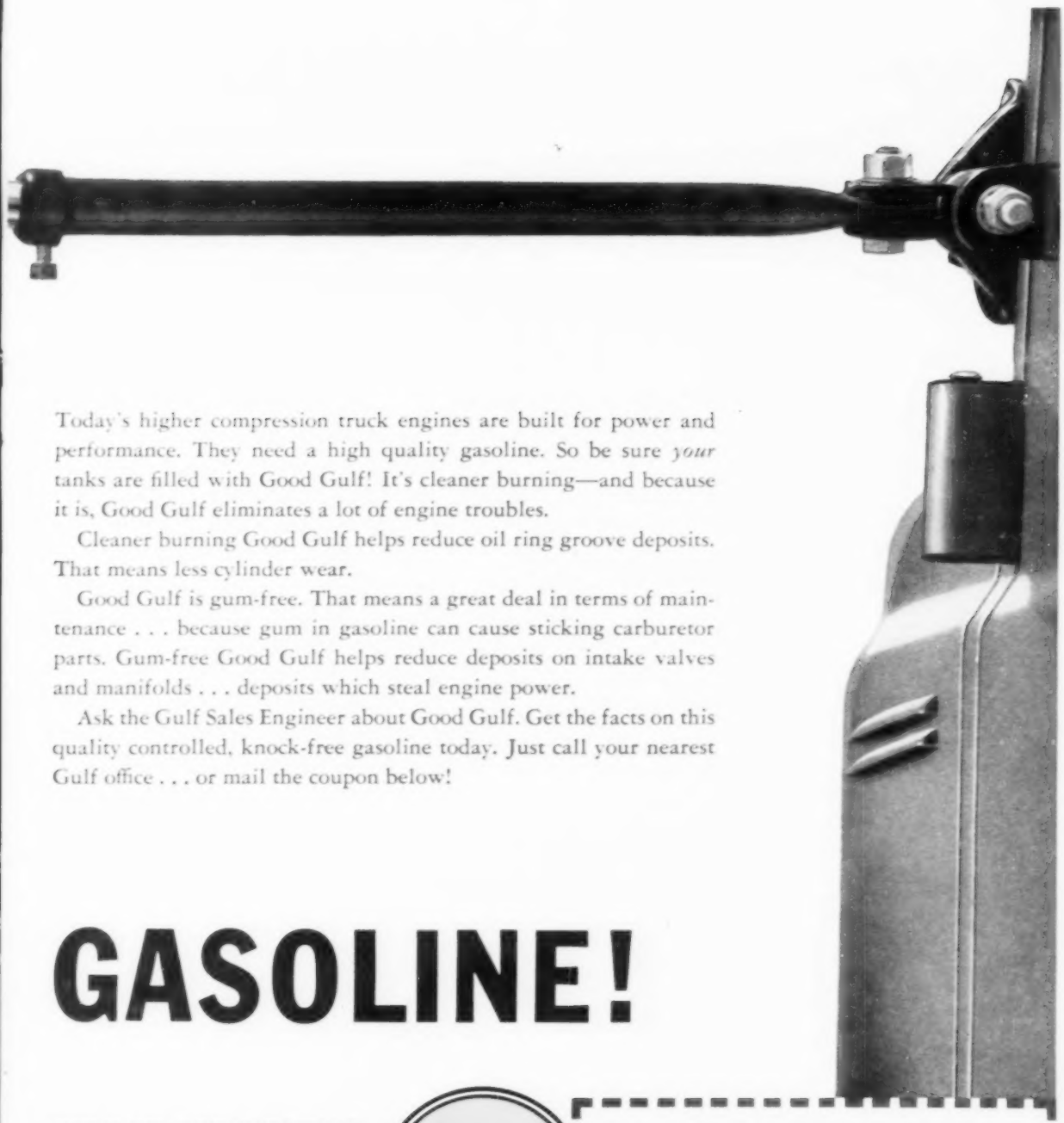
Division of Federal-Mogul-Bower Bearings, Inc.

For top engine performance and lower maintenance costs...use

GOOD GULF





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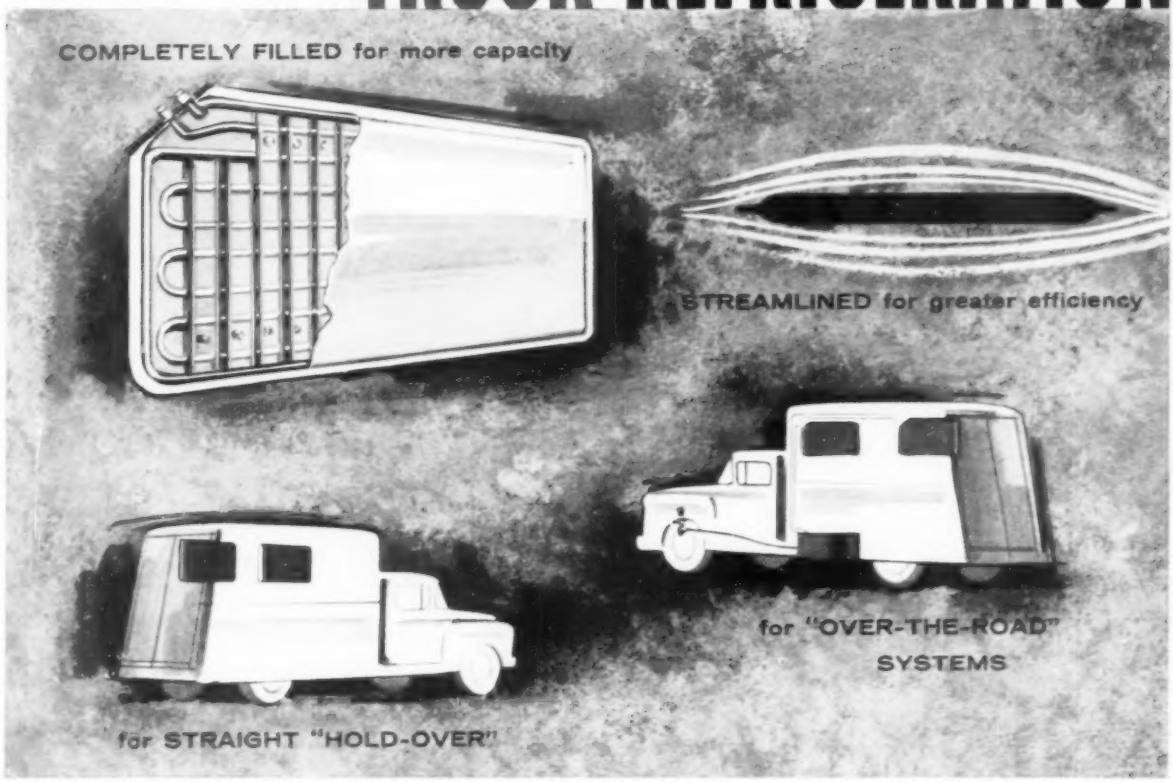

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Oil Pipe Hauler: "We haul 42,000 lbs. net payload of oil-field pipe over mountainous terrain. In the first 6 months of operation of our INTERNATIONAL V-8 truck we have had no engine expense, average 5 to 5½ miles per gallon of gas!"

General Contractor: "My INTERNATIONAL V-8's have outperformed every competitive make under any and all conditions. We are most happy with the model VF-190A dump . . . I would recommend it to anyone using 8-10 yard dump trucks."

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INTERNATIONAL TRUCKS cost least to own!

Coming Events for Fleetmen . . .

IF YOU'RE RUNNING a meeting and want others to attend, send a notice to Coming Events Editor, FLEET OWNER, 330 W. 42nd St., New York 36, N.Y.

A suggestion if you expect to attend a meeting listed below: Sometimes there are last-minute changes in date or location that we cannot publish. So it's wise to check with association or convention secretaries before you make your final plans.

JANUARY 1958

11-15 National Automobile Dealers Assn. 41st Annual Convention, Miami Beach, Fla. (For information, write to: National Automobile Dealers Assn. 2000 K. St., N.W., Washington, D.C.)

13-17 Society of Automotive Engineers, Annual Meeting, Hotels Sheraton-Cadillac and Statler, Detroit, Mich.

27-30 Plant Maintenance and Engineering Conference, International Amphitheatre, Chicago, Ill.

30-31 Private Trucks Council of America, Sheraton, Philadelphia.

30-Feb. 1 Automotive Electric Assn. Regional Conference, Hotel Statler, Los Angeles, Calif.

FEBRUARY 1958

3-5 Regular Common Carrier Conference Board Meeting, Roosevelt Hotel, New Orleans, La.

3-6 National Auto Accessories of America Exposition, Navy Pier, Philadelphia, Pa.

4-6 Society of Plastics Industry, Inc. 13th Annual Conference, Edgewater Beach Hotel, Chicago, Ill.

6 Illinois Bus Assn. 33rd Annual Meeting, Congress Hotel, Chicago, Ill.

18-19 Motor & Equipment Assn. National Convention Registration, Statler Hotel, Los Angeles, Calif.

20-23 Pacific Automotive Show, Pan Pacific Auditorium, Los Angeles, Calif.

APRIL 1958

2-3 New England Bus Assn. Annual Meeting, Sheraton-Biltmore Hotel, Providence, Rhode Island.

5-13 International Automotive Show, New York Coliseum, New York, N. Y.

13-16 Customer Relations Council Annual Spring Meeting, Balmoral Hotel, Miami Beach, Fla.

15-17 Annual American Welding Society Show, Kiel Auditorium, St. Louis.

25-27 New Jersey Motor Truck Association Convention, Hotel Berkeley Carteret, Asbury Park, N. J.

MAY 1958

4-8 The Operations Council (ATA) Spring Meeting, Jung Hotel, New Orleans, La.

5-9 American Society of Training Directors, 14th Annual Conference, Sheraton-Park Hotel, Washington, D. C.

6-8 Seventh Highway Transportation Congress, Hotel Mayflower, Washington, D. C.

13-16 Council of Safety Supervisors Annual Meeting, Hotel Cleveland, Cleveland, Ohio.

18-22 National Accounting & Finance Council Annual Meeting, Statler-Hilton Hotel, Dallas, Texas.

JUNE 1958

3-5 National Parking Assn. Meeting,

Men who know best put their O.K. on

DOLE THERMOSTATS

Sheraton Cadillac Hotel, Detroit, Mich.

9-12 National Materials Handling Exposition, Public Auditorium, Cleveland, Ohio.

9-12 American Society of Mechanical Engineers, National Conference on Materials Handling, Public Auditorium, Cleveland, Ohio.

11-13 Regular Common Carrier Conference, Board of Governors Meeting, Wentworth-by-the-Sea, Portsmouth, N. H.

Training Courses . . .

Courses for management, supervisors and maintenance men—here's where you'll find the time and the place.

JANUARY 1958

6-10 Fleet Supervisor Course, University of Nebraska, Lincoln, Nebraska.

6 Effective Fleet Supervisor Course, Brown University, Providence, R. I.

7-24 Industrial and Traffic Management Course, American University, Washington 16, D.C.

13-March 17 Truck Fleet Supervision Course, West Virginia State College, Charleston, West Virginia.

20-24 Fleet Supervisor Course, University of Alabama, University, Ala.

27 Effective Fleet Operation Course, Ohio Mechanics Institute, Cincinnati, Ohio.

FEBRUARY 1958

3 Effective Fleet Supervisor Course, University of Wisconsin, Milwaukee, Wis.

5-May 21 Accident Prevention for Motor Vehicle Fleets, Center for Safety Education, 6 Washington Square-North, New York 3, N. Y.

12 Effective Fleet Operation Course, Syracuse University, Syracuse, N. Y.

13 Effective Fleet Operation Course, Purdue University, Lafayette, Ind.

17-21 Fleet Supervisor Course, University of Virginia, Richmond, Va.

18 Effective Fleet Operation Course, University of Mississippi, Jackson, Miss.

19-May 7 Effective Fleet Supervision Course, Syracuse University, Syracuse 10, N. Y.

24 Effective Fleet Operation Course, Northwestern University, Evanston, Ill.

25-27 Efficient Terminal Management Course, Pennsylvania State University, University Park, Pa.

26-28 Efficient Terminal Management Course, Purdue University, Lafayette, Ind.

MARCH 1958

3-7 Maintenance Course, Ontario Safety League, Toronto, Can.

3-21 Traffic engineers seminar, Traffic Institute, Northwestern University, Evanston, Ill.

5 Efficient Terminal Management Course, University of Kansas, Kansas City, Kan.

10-14 Maintenance Course, University of Florida, Gainesville, Fla.

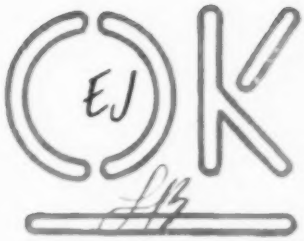
12 Efficient Terminal Management Course, University of Kansas, Kansas City.

17-21 Maintenance Course, Montana Motor Transport Assoc., Billings, Mont.

17-21 Fleet Supervisor Course, University of Oklahoma, Norman, Okla.

19 Efficient Terminal Management Course, University of Kansas, Kansas City.

23-28 Executive Training Course, New York University, New York, N. Y.



Year after year more and more automotive manufacturers choose Dole. Today, Dole Thermostats are standard equipment on 38 makes of passenger cars, trucks, tractors, commercial vehicles, industrial and marine engines. This includes 19 out of 20 top passenger cars*.

Dole has earned this position of leadership through their never-ending program of research and development and their constant adherence to the highest standards of quality in engineering and manufacturing. Dole Thermostats have passed every test for accuracy and dependability under all operating conditions.

So . . . it's no wonder that men who know best put their O.K. on Dole Thermostats. It's just good common sense.

*As listed in Automotive News.

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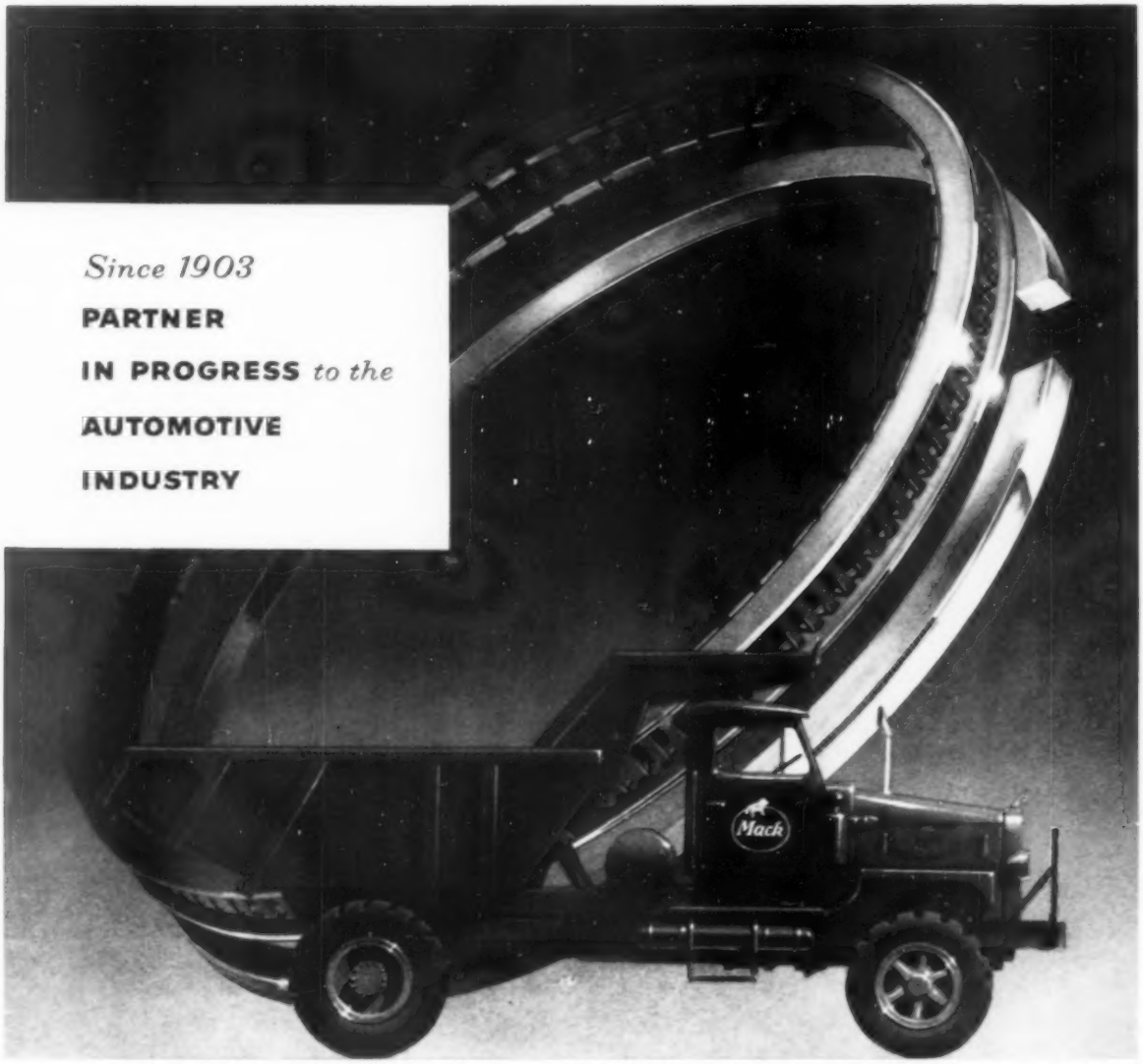

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Much history has been written since the early days when Perfect Circle began making parts to put horsepower into the "horseless carriage." Year after year, we have been privileged to take an active part in the development of the wonderful machines that are today's trucks, tractors and motor cars.

Because they are specifically engineered to meet the exacting demands of modern high-compression engines, Perfect Circle piston rings are preferred by more engine manufacturers for original equipment and for replacement service than any other brand.

When it's overhaul time for your cars and trucks, do as the manufacturers do! Specify Perfect Circles! PC 2-in-1 Chrome piston rings more than *double* the life of cylinders, pistons and rings, assuring more hours of sustained power with lasting oil economy...more hours between overhauls. Perfect Circle Corporation, Hagerstown, Indiana; The Perfect Circle Co., Ltd., 888 Don Mills Road, Don Mills, Ontario.

PERFECT CIRCLE PISTON RINGS

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YOUR PERSONAL BUSINESS

Specially selected and edited for fleet owners from BUSINESS WEEK, a McGraw-Hill publication

FLEET OWNER

Don't let the recent talk about the "new look" of your personal income tax return throw you. Actually, there's no Internal Revenue Service ruling involved. What's happened is that the front page of the new 1040 tax form now carries a separate line—6(a)—calling for the total figure spent on "travel, reimbursed expenses, etc."

The IRS has issued what it hopes will be the last word on line 6(a), following in the wake of many months of confusion over the agency's stand on expense accounts: "Taxpayers will not be required to answer line 6(a) of the 1957 Individual Tax Return Form 1040, and thus employees will treat travel, reimbursed expenses, etc., for 1957, as they have in the past. All Internal Revenue districts are being so informed."

As in the past, you're supposed to attach a statement to your return showing just where the expense money went. However, there has been no place on the form to enter the deductible reimbursement-expense figure, and the requirement to provide this information has been easy to ignore. Many did just that and got away with it. This didn't mean the IRS was not watching expense accounts on filed returns. They often checked and found nothing wrong.

The Chief of the IRS said all individual taxpayers should keep adequate records of their expenses and reimbursements so that for 1958 and later years they will be in a position to supply expense-account information from their own personal records, since most people on expense accounts do not retain copies of the records they send their companies.

The decision not to require answering 6(a) was made because the new line requirement was not made public until ten months of the tax year had passed, and hence had a retroactive effect. However, the service stressed, "This decision does not change the long-standing rules with respect to substantiation of deductions when a taxpayer's return is audited."

•

With little left of Christmas but the January bills, it's a good time to look to the rights of the consumer who got stuck with damaged, defective, dangerous —or just unwanted—merchandise. The stores are full of people trying to exchange Yuletide presents—for cash, merchandise orders, or a different size. And there are others, less fortunate, who have a great deal more to complain about—they were made ill or were injured as the result of something bought in a store and used innocently.

First, a word about exchanging Christmas gifts. Perhaps the only hard-and-fast rule is to supply the store with proof that the item was actually purchased there. A sales slip, label, special return slip, or even a box will probably do. Without a sales slip, you'll most likely not get cash but credit at the current selling price (which may be less because of post-Christmas mark-downs)—unless you can muster other evidence of cost. Usually, there's no rigid deadline on exchanges; some stores say Jan. 10 or 12.

Gift certificates—most of them without a time limit—can be converted to cash in some stores. In others, they're good only for credit. But you can always apply them to your charge account.

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YOUR PERSONAL BUSINESS

Specially selected and edited for fleet owners from BUSINESS WEEK, a McGraw-Hill publication

Continued from preceding page

If goods are damaged or defective, you enjoy some legal rights whether or not you suffer harm or injury. You (or the person who made the purchase) can return the merchandise—whether a box of tree lights or an expensive wrist watch—for a refund or perhaps a replacement. Most stores are very reasonable about this practice, based on the theory of "implied warranty," which says that the goods offered for sale are of "average merchantable quality." If the retailer isn't amenable, it's a question of going to court—or at least seeing a lawyer.

If you want a refund (or money damages) on the ground that the goods were supposed to possess some unique or special quality and didn't, you must show an "express warranty." This is something in writing, or something you can prove the retailer said by way of guarantee—such as the salesman who specifically promises the TV set will be absolutely free of flicker if his company's service department installs it.

Note: The retailer has a right to "puff" his goods—to play them up to make a sale. If you go to court, it's up to the jury to draw the line between puffing and misrepresentation. Moral: Get a written statement if it's an expensive purchase with unique features.

The real trouble comes with illness or injury resulting from the use of a product. Say your wife ordered Christmas candy from a local store, and you all got sick from eating it. The upshot is a ruined holiday, several home calls by the doctor, and a week's hospitalization for your child. Tests show the candy was contaminated. What can you do?

- **Your wife, as buyer, could sue** and probably recover damages from the store to cover her own injury—on the basis of the merchant's implied warranty that the candy was free of harmful defect.
- **If you and your child sued the store,** however, damages would usually be denied—because of the lack of a contractual, buyer-seller relationship (your wife bought the candy). Implied warranty would not apply.
- **You could sue the candy manufacturer** and collect for all injuries suffered by you and the family—provided you could prove negligence in preparing the candy and that it had been purchased in its original, sealed package. (Basis of the suit: negligence.)

In such a case, you can get money damages from a manufacturer no matter what the product—food, appliances, vehicles, housewares, soft goods. Obviously, the manufacturer and not the retailer—at least, in many cases—would be your best bet for financial recovery (in terms of ability to pay damages). Besides, the manufacturer would be more apt to make a reasonable settlement (out of court) to protect his product goodwill. Biggest stumbling block in all these cases: lack of proof.

●

If you're planning on building a home within the next few years, it might pay you to stop and look at the national building situation for the present and the forecast for the coming year. Prices are on a steady march upward with no relief in sight. On page 59 of this issue, FLEET OWNER gives the industrial building picture. Private home builders should know these facts, too.

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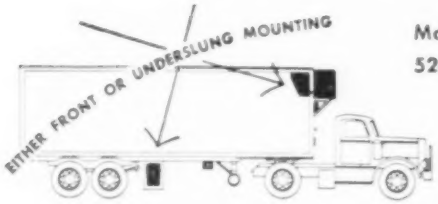
Photo courtesy of Hawthorn-Mellody Farms Dairy

Getting it to the table is the BIG PROBLEM

Transport of ice cream is never easy. Between manufacturer and table are problems that consumers never think of. But . . .

One of our good customers informs us that his trailers, equipped with TROPIC-AIRE–CARRIER reefers, are hauling ice cream from Los Angeles to central California, summer and winter, ambient temperatures from 70° to 115° F., with cargo arriving at a steady, comfortable −20°F., and hard as concrete.

Thanks, Mr. Customer . . . we're just doing our job. Getting America's frozen foods from processor to retailer. In *prime* condition. We believe that TROPIC-AIRE–CARRIER can do just a little bit better than any other reefer equipment can do.



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MOBILE REFRIGERATION / AIR CONDITIONING

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American Hammered's new Stainless Steel Oil Ring
won't fatigue under heat!

Stainless steel—*and only stainless steel*—will retain its original built-in tension at engine operating temperature. Carbon steels lose their tension under the tremendous operating temperatures of today's high compression engines. Because they do, American Hammered's stainless steel oil ring outperforms all carbon steel oil rings. It delivers maximum oil control at all times.

Extra large pads on the expander hold the side rails tightly at the rear, prevent oil being sucked around the back of the ring—make it positively side-sealing. No smoking even under deceleration.

Stainless steel cannot corrode . . . will not sludge or clog. And this new oil ring is matched with a pre-seated chrome compression ring in every American Hammered Krome-Oil Piston Ring Set. They break-in instantly.

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Manufacturers of American Hammered Automotive Replacement Piston Rings

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Keep This Handy Reader's Guide To 1957 Fleet Owner Stories

IN THIS NEW EXPANDED INDEX you'll find more Fleet Owner stories—and you'll find them faster.

First of all, you'll note the index is in two sections. Part I lists subjects covered in regular Fleet Owner features (picture stories, surveys, special reports). Even the major items in our Personal Business Department are listed. Part II is an alphabetical listing with more than 60 headings and cross-index references. Another innovation is symbols to identify certain types of stories. Example: PS for picture story. This is an extra memory aid, in case you're looking for a story which you remember as a picture story.

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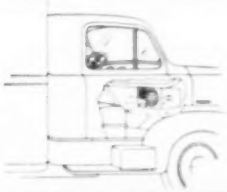
CAB HEATERS

safe, sure heat
at low cost
for gas or diesel rigs



- shirt sleeve warmth in coldest weather
- gasoline-burning, thermostatically controlled
- operate independent of vehicle engine
- eliminate costly engine idling
- sub-zero starting, unfailing combustion
- conform to all ICC regulations
- economical, compact, easy to install

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Transport Heating and Refrigeration

LP
GAS CARGO HEATER

Positive
Protection for perishable cargos

MODEL UH-99

- exclusive new jet-type burner forces high volume of clean heated air to every corner of cargo space
- available in two models: UH98 for permanent installation; UH99 self-contained portable unit
- operates for 24 hours at top heat — at very low cost — 16,000 BTU per hour
- completely independent of vehicle engine and battery
- accurate thermostatic control — no "hot spots" — no "cold spots"
- no moving parts — no maintenance problems
- safety pilot — meets all ICC safety regulations
- compact — takes up less cargo space — permits more "cube"
- operates in coldest weather — on or off the road

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Truck-Air Changes Attacked

THE CIVIL AERONAUTICS BOARD is seeking authority to assess fines when airlines disregard regulations, as the result of an unapproved switch made by Slick Airways from air to truck service. In June, Slick replaced its direct cargo service at Louisville and Pittsburgh with truck-air service by way of Indianapolis and Cleveland airports. The Louisville Chamber of Commerce and other state and local groups objected, claiming the service was inadequate.

The airline pleaded serious financial conditions. It said Louisville and Pittsburgh were among the lowest cities in volume of traffic, and that cost of direct service exceeded revenues. Truck-air service, it claimed, offers more schedules with quicker delivery. Slick has been granted permission to continue the new service.

160 MORE for P.I.E.

SPRAGUE *AIR-PUSH* WINDSHIELD WIPER CONVERSION KITS!

Pacific Intermountain Express, Oakland, California, hauls through severe weather extremes—mountain blizzards and desert heat. Repeatedly they turn to Sprague Air Push Wipers for dependable vision plus lower maintenance. P.I.E. recently ordered 160 **more** Sprague Conversion/Replacement Kits—there must be a reason—how about your fleet? **Write for complete information.**

Safety Starts With Seeing!

Sprague DEVICES, INC.
MICHIGAN CITY, INDIANA

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Norwalk's new 700-foot-long Chicago terminal—one of 41 locations served by private line teletypewriter.

How 41 Norwalk terminals handle their own dispatching —with the aid of private line teletypewriters

By linking terminals of Norwalk Truck Lines, Inc., private line teletypewriter service enables each terminal to handle its own dispatching.

Here's how the service works:

Norwalk is decentralized because of the short-haul, high-turnover nature of its shipments. All messages pertaining to dispatch, overages, shortages, delays, and rush shipments are transmitted over the teletypewriter service. Thus all terminals have a written record of what's going on throughout the system.

This "broadcast" method makes each terminal semi-autonomous. Each gets a running picture of system operations to co-ordinate its own dispatching needs with the other terminals.

There's a private line service for every communications need—to improve your operations. A Bell System representative will be glad to explain how these economical services can help you. Just call your Telephone Company business office. No obligation, of course.

BELL TELEPHONE SYSTEM

PRIVATE LINE TELEPHONE • PRIVATE LINE TELETYPEWRITER • DATA TRANSMISSION SYSTEMS
CHANNELS FOR: REMOTE METERING AND CONTROL • TELEPHOTOGRAPH • CLOSED CIRCUIT TV

In diesel engine overhaul . . .

"Never any trouble with Clevite 77"

The Diesel Service Unit Company, Portland, Oregon, has specialized in engine rebuilding since 1945. During this time, overhaul work has been performed on every conceivable type of equipment powered by diesels.

An interview between Mr. Wally Yost, partner-owner of Diesel Service, and Mr. Dale Huff of The Cleveland Graphite Bronze Co., brings out some interesting observations on the performance of Clevite 77* engine bearings. We believe you will find highlights of this discussion impressive.

Mr. Wallace H. Yost,
Partner-Owner

Q Mr. Yost, will you briefly outline the type of service you perform?

A We are primarily diesel engine rebuilders. I would say we overhaul an average of 200 engines a year.

Q Does your business come from any specific region?

A Mainly Oregon and southwestern Washington. Approximately a 350 mile radius.

Q What operating conditions do diesels encounter in this area?

A From sea level to 7000'. Temperatures from 30 below to 110°.

Q What do you recommend as standard engine bearing maintenance practice?

A Once an engine is out of the frame, we recondition the shaft if the journals are out .001" or more. If the engine is in the frame and the shaft is smooth, we prefer to limit the out of round and taper to .002".

Q In order of preference, which brands of bearings do you use?

A We use only one brand . . . Clevite 77.

Q Why did you start using Clevite 77?

A As we were tearing down engines for overhaul or repair, Clevite 77 bearings were always in much better condition than other bearings. We noticed some engines with two different brands, and Clevite 77's were always in better shape. They looked like new compared to other bearings.

Q How long have you been using Clevite 77?

A Five Years.

Q In addition to what you said earlier, are there any other reasons why you've standardized on Clevite 77?

A Previously we pulled engines down to check bearings; now we pull them because of excessive blow-by, oil consumption or some trouble other than bearings. We never have trouble with Clevite 77.

You, too, will find the patented tri-metal construction of Clevite 77 provides greater fatigue strength, corrosion resistance and a superior running surface.

Where load and operating conditions require engine bearings with high-duty stamina, there's nothing better than Clevite 77*. See your nearby N.A.P.A. jobber for the *complete* Monmouth* bearing line.

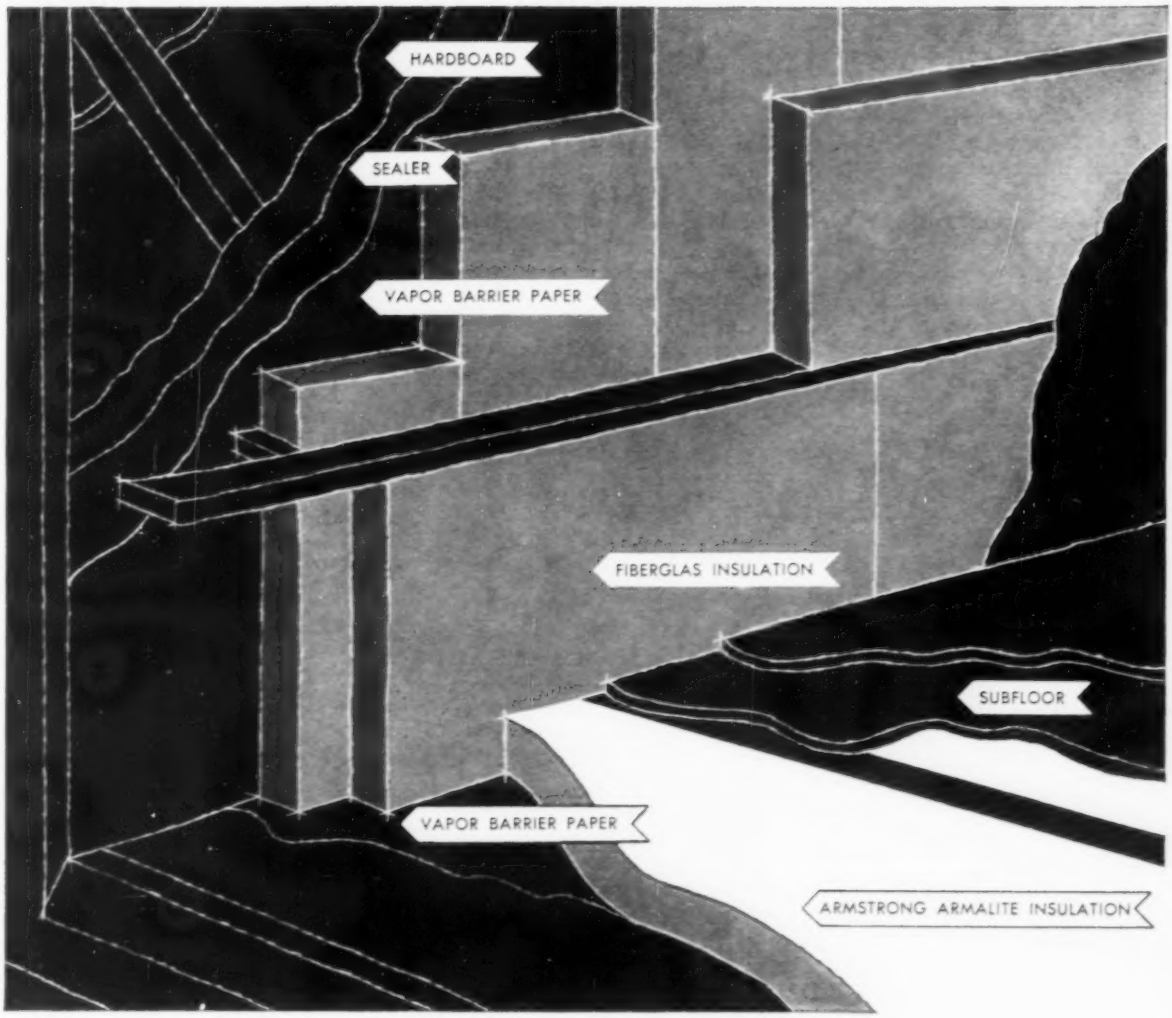
*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation.

Monmouth

ENGINE BEARINGS

CLEVITE SERVICE

The Cleveland Graphite Bronze Co.
Division of Clevite Corporation
Cleveland 3, Ohio, U.S.A.



How you can keep air and vapor out of a refrigerated cargo trailer

To assure efficient operation of a refrigerated cargo trailer, adequate air and vapor barriers must be built in. It's almost impossible to maintain safe temperature if moisture gets into the insulation . . . and the added weight can greatly reduce your payload capacity.

The best way to cut down heat and moisture gain is by sealing the outer shell. Shown above is a practical method for sealing a trailer body which has complex interior framework. Hardboard should first be applied over the metal framework as a solid base for the insulation. Follow with a rubber or asphaltic type sealer and a vapor barrier paper cemented over the interior wood framing and all corners. The first layer of Fiberglas** insulation fits behind the wood framing, and the second goes between the framework and is covered with a liner.

In the floor, rigid boards of lightweight Armstrong Armalite* are installed over vapor barrier paper. Wooden sleepers help support subfloor, metal floor pan, and the load.

For full details on sealing cargo trailers and truck bodies, and information on the complete line of Armstrong insulations for refrigerated bodies, write Armstrong Cork Company, 2101 Robbins Avenue, Lancaster, Pennsylvania.

Armstrong INSULATIONS

* Trade Mark ** T.M. Reg. U.S. Pat. Off. OCFCorp.

Road Plan Stands Despite Cuts

THERE IS NO inclination in government circles to tap the Federal road aid funds for other purposes. This announcement has been made by deputy assistant to the president, Howard Pyle.

Speaking before the convention of the American Automobile Association in Phoenix, Ariz., Mr. Pyle stated that the government was optimistic on advancing the $27.5-million interstate highway system. Pyle was answering doubts stirred by President Eisenhower's Oklahoma City talk on security, in which the President mentioned cutbacks in "other spending" to accommodate an accelerated defense program. Mr. Pyle says the highway project rates tops in defense planning, and the White House is not considering cuts. While money might have to be stretched, he said, it would only mean delay, not reduction.

Every good mechanic knows

there is no substitute for good workmanship

...and good workmanship requires Good Equipment!

He also knows that today's high-horsepower engines are precision machines that allow no room for guesswork. Pin fitting... Cylinder and Rod reconditioning... all such work must meet the manufacturers' new specifications for clearances and surface finishes, to insure trouble-free engine performance.

Sunnen engine rebuilding equipment is guaranteed to produce factory accuracy. It is unexcelled for...

PIN FITTING...ROD RECONDITIONING
CYLINDER HONING

Many fleet shops have found Sunnen Equipment a profitable investment because it puts vehicles back in service faster and keeps them in service longer.

It will pay you to stay in step with the times. Write us for literature or a free demonstration, right in your own shop.

979

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7916 Manchester Avenue
St. Louis 17, Missouri
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WORLD LEADER IN HONING ACCURACY

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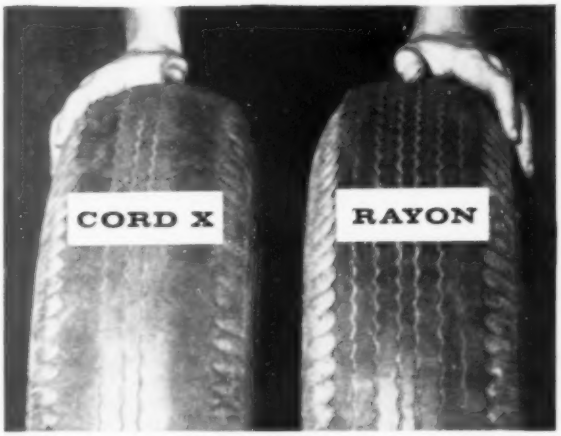
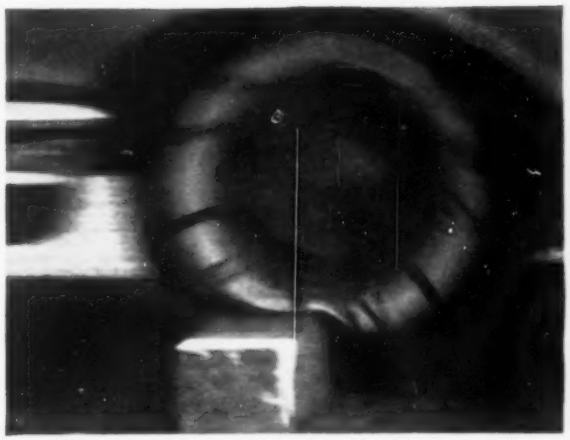
New **Super Rayon** tire cord makes a **Big Difference** in **Operating Costs**



LONG RUNS. A carefully controlled driving test recently showed the treads of Super Rayon cord tires wearing *14 to 26% longer* than treads of tires made with the other cord. Super Rayon clings to rubber tight, flexes with it right, resists shrinking and swelling. So there's less stretch and strain on the rubber around it. *There's longer wear.*



IMPACT RESISTANCE—SAFE RUNS. Test drivers at Motor Vehicle Research, outstanding independent testing authority, prove it. By hitting granite blocks at speeds up to 60 m.p.h. they dented rims—but didn't hurt their rayon tires! And stunt drivers like Tournament of Thrills drivers demonstrate it day after day—as they bet their *lives* on their rugged Super Rayon cord tires!

RETREADING ECONOMY. Super Rayon does the job with fewer steps—greater savings. Rayon resists shrinking and swelling, doesn't soften with heat. It's unmatched for flexibility and stability, hot and cold. That makes it rubber's natural partner both for longer runs *before* retreading—and for easier, more economical retreading, too!

HERE'S WHY. Super Rayon is a vastly improved cord over the rayon of a few years ago—*virtually a new cord.* Unflagging research has made Avisco Super Rayon 50% stronger, 100% more flexible, 50% higher in impact resistance. Result: rugged Super Rayon is today's *premium performance tire cord.* Make sure *you* get all the operating economies coming to you. Rayon makes the difference!

AVISCO® TIRE RAYON

AMERICAN VISCOSE CORPORATION, 350 Fifth Avenue, New York 1, N. Y.

Insist on Super Rayon Tires for Low Operating Costs!

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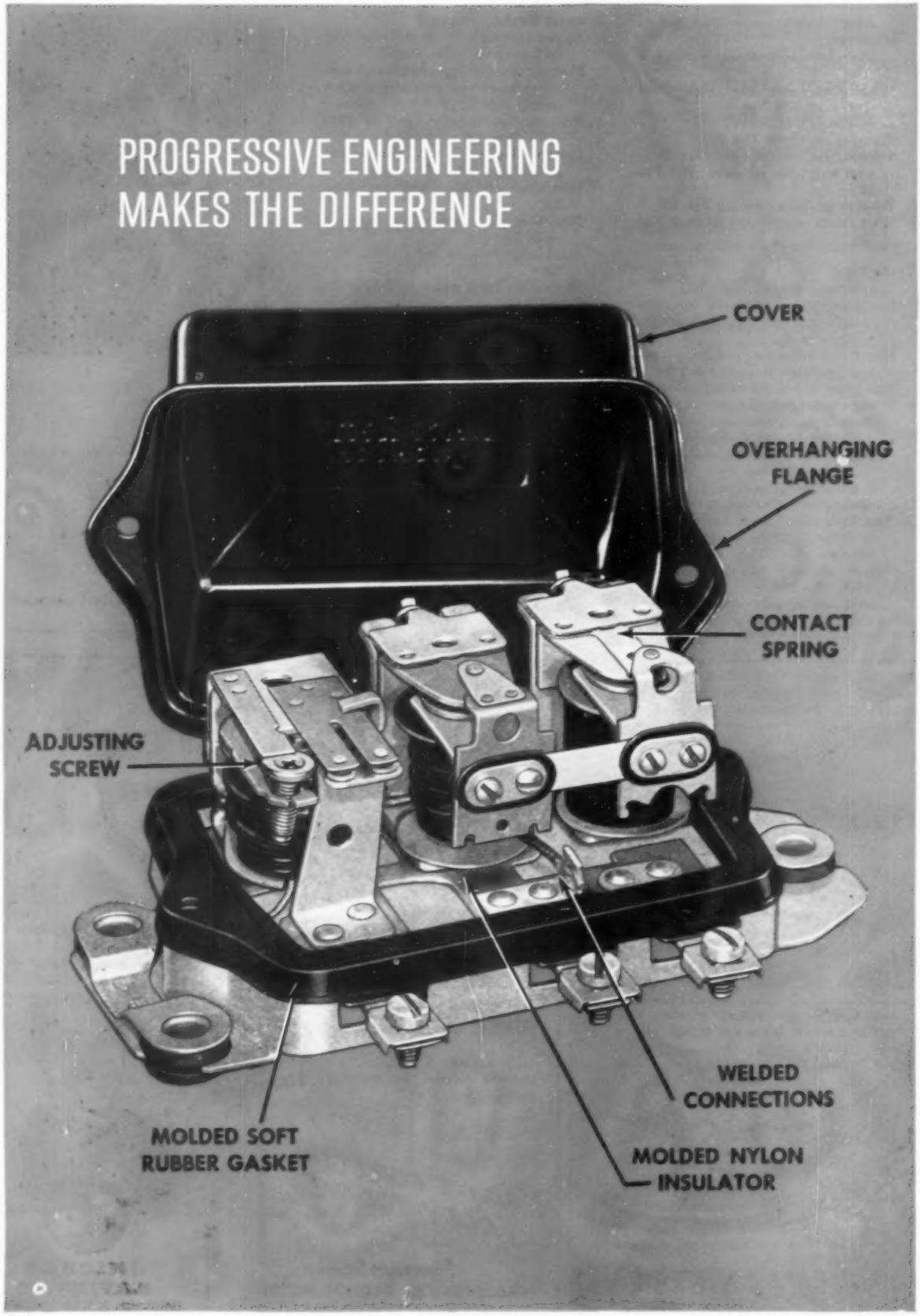
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MAKES THE DIFFERENCE
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MOLDED NYLON INSULATOR

DELCO-REMY WATERPROOF STANDARD REGULATORS IMPROVE FLEET PERFORMANCE

Better electrical performance and greater dependability in any weather are important benefits to fleet operators found in Delco-Remy's waterproof standard generator regulators, now available for general replacement use.

And here are the features that make them the *right* regulators for Delco-Remy equipped cars and trucks in fleet operations.

1. New overhanging one-piece formed-steel cover and mating base shed road splash . . . convenient attaching screws are *outside* the enclosed area. Molded soft rubber gasket seals out harmful oil and water vapors.
2. Integral sleeves of molded nylon insulator form permanent seal around rivets—assure watertight base.
3. New, longer, more flexible armature contact spring on voltage regulator unit assures more positive closing of contact points for smoother operation.
4. Welded electrical connections, and highest quality tungsten and non-tarnishing precious metal contact points, assure minimum resistance, maximum durability.
5. Special fine thread screw-type controls allow easy, highly accurate adjustment of all three units.

Always replace with Delco-Remy waterproof regulators when you service Delco-Remy equipped cars and trucks. These improved regulators, built to highest quality standards by the original equipment manufacturer, are available from your car or truck dealer or the United Motors System.

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GM GENERAL MOTORS

GENERAL MOTORS LEADS THE WAY—STARTING WITH

Delco-Remy

ELECTRICAL SYSTEMS

PROVED IN THE LAB...

PROVED ON THE ROAD!

NEW *TRANSULITE* INSULATION REDUCES MOISTURE PICKUP

Standard laboratory test shows that the specially developed binder in Transulite keeps moisture pickup under 5% by weight.

Transulite is a new moisture-resistant insulation *specifically developed* for refrigerated trucks and trailers. Even when frequent door opening exposes it to the effects of condensation, a special binder cuts moisture pickup to a minimum in L·O·F Glass Fibers' Transulite . . . helps it maintain *full* insulating efficiency.

L·O·F Glass Fibers' Transulite is made from fine glass fibers and bonded with this special new binder. In addition to its excellent moisture resistance, it offers:

- *Excellent Vibration Resistance*—Has outstanding resistance to sagging and settling.
- *Top Thermal Efficiency*—Rates as one of the most efficient of insulations on a heat-resistance-to-weight basis.
- *Light Weight*—As little as ⅔ oz. per sq. ft. Allows increased payloads. Compression-packed rolls are easy to handle.
- *Pleasant, Easy Installation*—Pleasant to handle, even without gloves. Resilient blanket stays in place without clips or adhesives, speeds application.

Find out more about how this amazing new insulation gives highly effective protection for frozen or perishable cargoes. Write today: *L·O·F Glass Fibers Company, Dept. 43-18, 1810 Madison Avenue, Toledo 1, Ohio.*

L·O·F GLASS FIBERS

L·O·F GLASS FIBERS COMPANY • TOLEDO 1, OHIO

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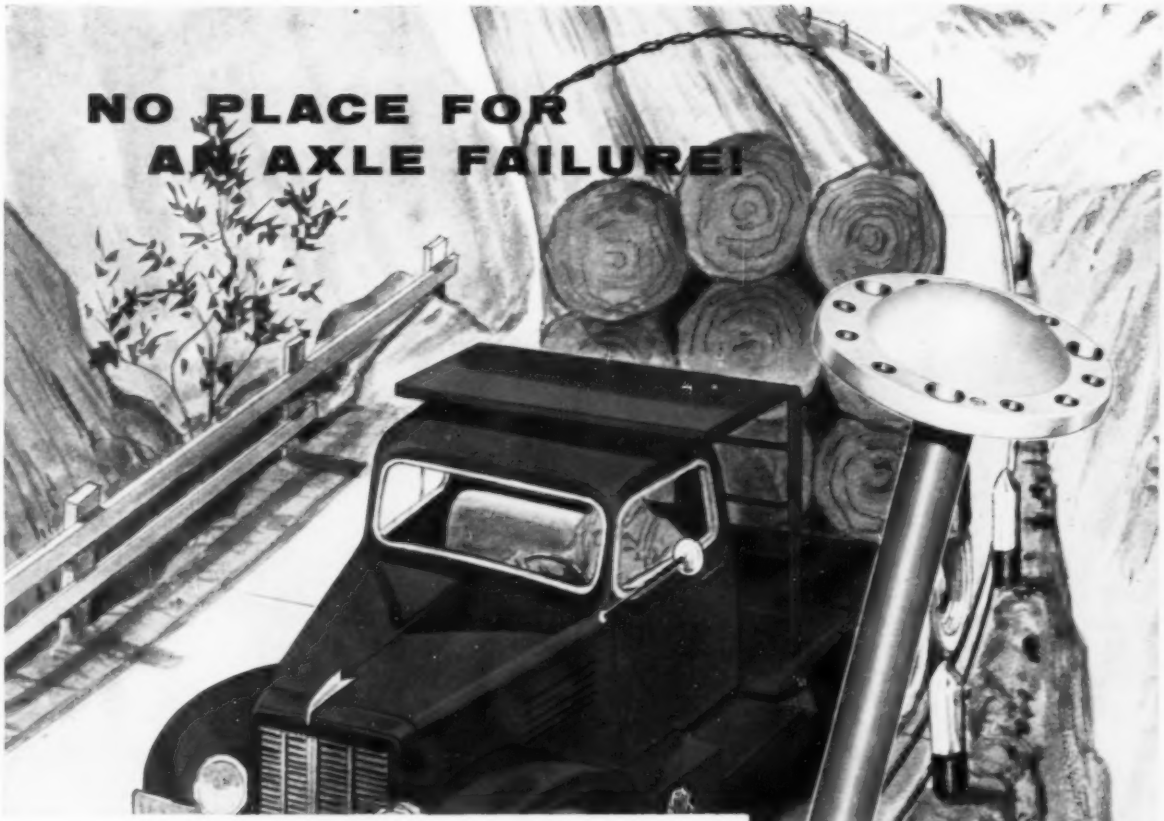

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US®

AXLE SHAFTS

For pleasure or commercial driving—light cars or heavy loads —U.S. AXLES' *extra safety* saves lives, cargoes, equipment, lost time, and cold hard cash.

Shot-peening, the hardening process that makes heat-treated, fine alloy steel tougher . . . (up to 5 times tougher by actual tests) assures greater endurance, longer life and dependability. U.S. AXLE SHAFTS, duplicates of original equipment, are providing this extra safety for more and more vehicles every day. It will pay you to make U.S. AXLE *your* source for axle shafts.

Depend on your U.S. AXLE JOBBER. He has the exact axle shafts to fit your needs.

WRITE FOR FREE VALUABLE GUIDE

"Causes and Prevention of Axle Shaft Failures"

THE US AXLE COMPANY, INC.

Since 1920 • Pottstown, Pennsylvania

"THE WORLD TURNS ON U. S. AXLES"

Hand Tool Series—9

Socket Wrenches Plus Ratchets

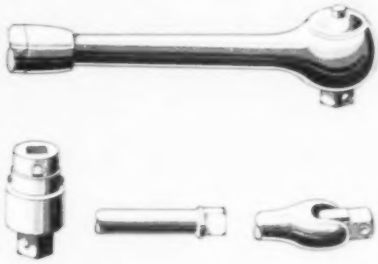
1. Standard — Deep

2. T-Handle

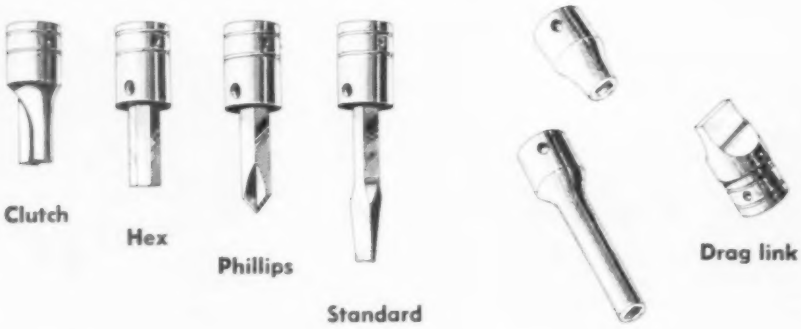
3. L-Handle

6-Point — 8-Point — 12-Point

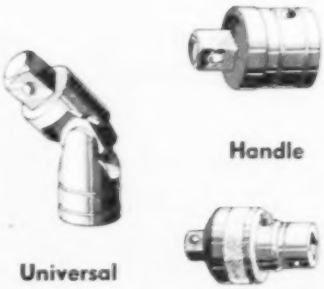
4. Broached sockets



5. Square drives



6. Specials



7. Adapters

SOCKETS AND ATTACHMENTS shown here represent only a few of the hundreds of combinations and accessories which are available on the market. Developed originally from the "T" and "L" handle types shown above, they are now in wide use in all fields of maintenance because they are so versatile and can save time on the job.

and Adapters—Big Time-Savers

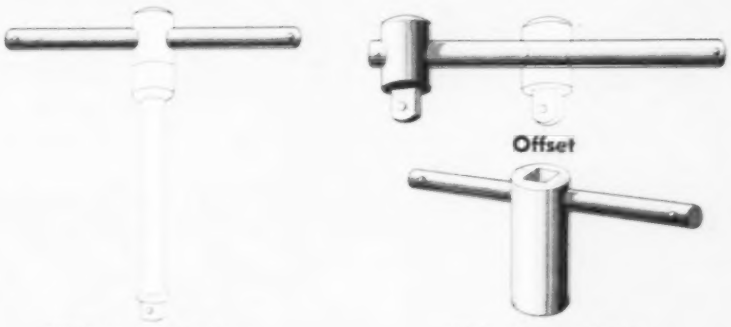
SOCKETS AND HANDLES are classed by their square-drive size. This is the size of the square part that connects socket to handle. Six standard sizes are used from $\frac{1}{4}$ in. up to $1\frac{1}{2}$ in.

The first sockets had the handle and socket as one piece. The first major step in the development of the socket wrench was to make the sockets separately so that handles could be interchanged, suiting them to a variety of uses.

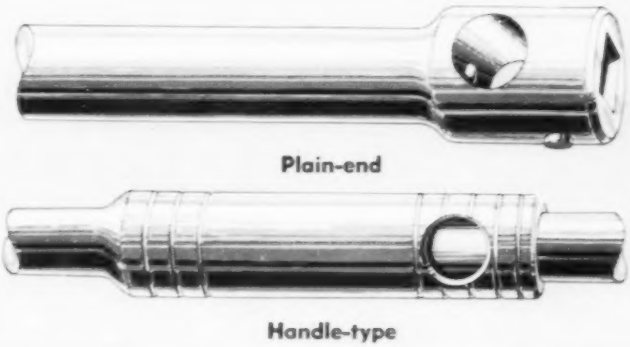
The early sockets were large and heavy with thick walls, to get the necessary strength. Today, with high-strength alloy steel construction, the modern socket is surprisingly light for the strength it possesses. Originally, sockets were of the single hex-type, called "6-points." Today, the most commonly used sockets are the double-hex type, known as "12-points."

Ratchet handles were another development that added to the usefulness of socket wrenches. These allow you to tighten or loosen a nut without lifting the socket off the nut to get another bite. The ratcheting mechanism in the head of the handle generally consists of a toothed wheel which engages a smaller pawl or set of bars. Pulling in one direction will apply a turning force on the socket—while pushing the opposite way lets the teeth slip, as the handle returns to original position. A reversing switch is generally provided to permit using the handle in either direction.

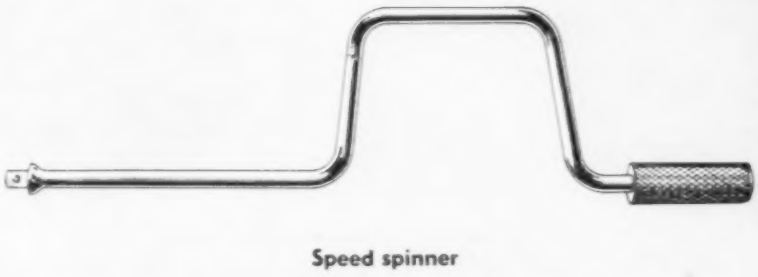
Universal joints permit you to use the wrench handle at an angle to the socket. This is a big help when working in close quarters. Also, they speed up the job. After the nut is broken loose, handle is swung upright and spun between the palms of the hands to remove nut. Flexible steel cable extensions are available.



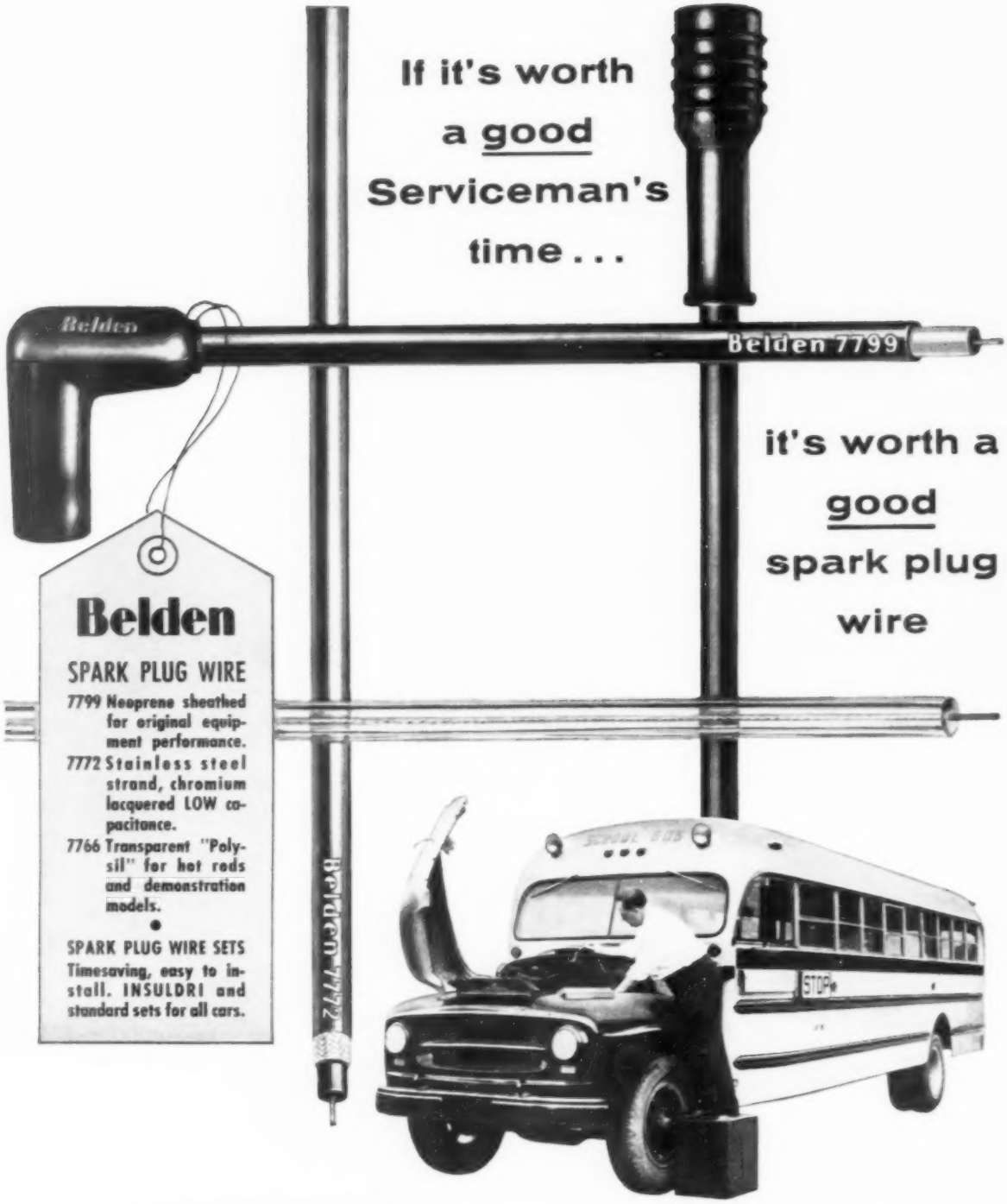
SLIDE-BAR ATTACHMENTS are designed for single or two-handed leverage. You can move handle in or out to get the best grip.



EXTENSION BARS give you more reach to get into inaccessible places. Bars shown are cross-drilled to take a slide bar.



THIS SPINNER gives maximum speed in running nuts on or off. On a cylinder head, for instance, once the nuts have been broken loose with ratchet or slide handle, spinner makes short work of removing them.



Belden

WIREMAKER FOR INDUSTRY
SINCE 1902
CHICAGO

58-7

Battery Cables • Spark Plug Wires • Lighting Wires

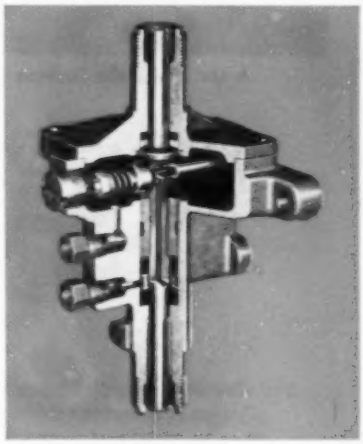
NOW—a truck governor that regulates road speed—not engine speed

For the first time, truck fleet operators can get accurate, predetermined economy results with all trucks by having all trucks operate at road speeds which have proven most economical. The new Holley roadspeed governor is driven relative to rear wheel speed instead of relative to engine speed. It can easily be calibrated for any truck gear ratio and has been successfully tested over thousands of miles of road conditions.

The Holley roadspeed governor can be used in conjunction with the engine speed governor. Thus, if the vehicle is running in one of the lower gears and the engine reaches its governed speed before reaching the predetermined mile per hour setting, the engine speed governor controls. In the event that road speed is reached prior to the engine rpm maximum setting, as in high gear, the roadspeed governor controls.

The roadspeed governor offers fleet operators a complete governing system designed to allow maximum horsepower under extreme load conditions and yet providing pinpoint control of road speed for maximum economy.

For more information on the Holley roadspeed governor, simply send a request on your letterhead.

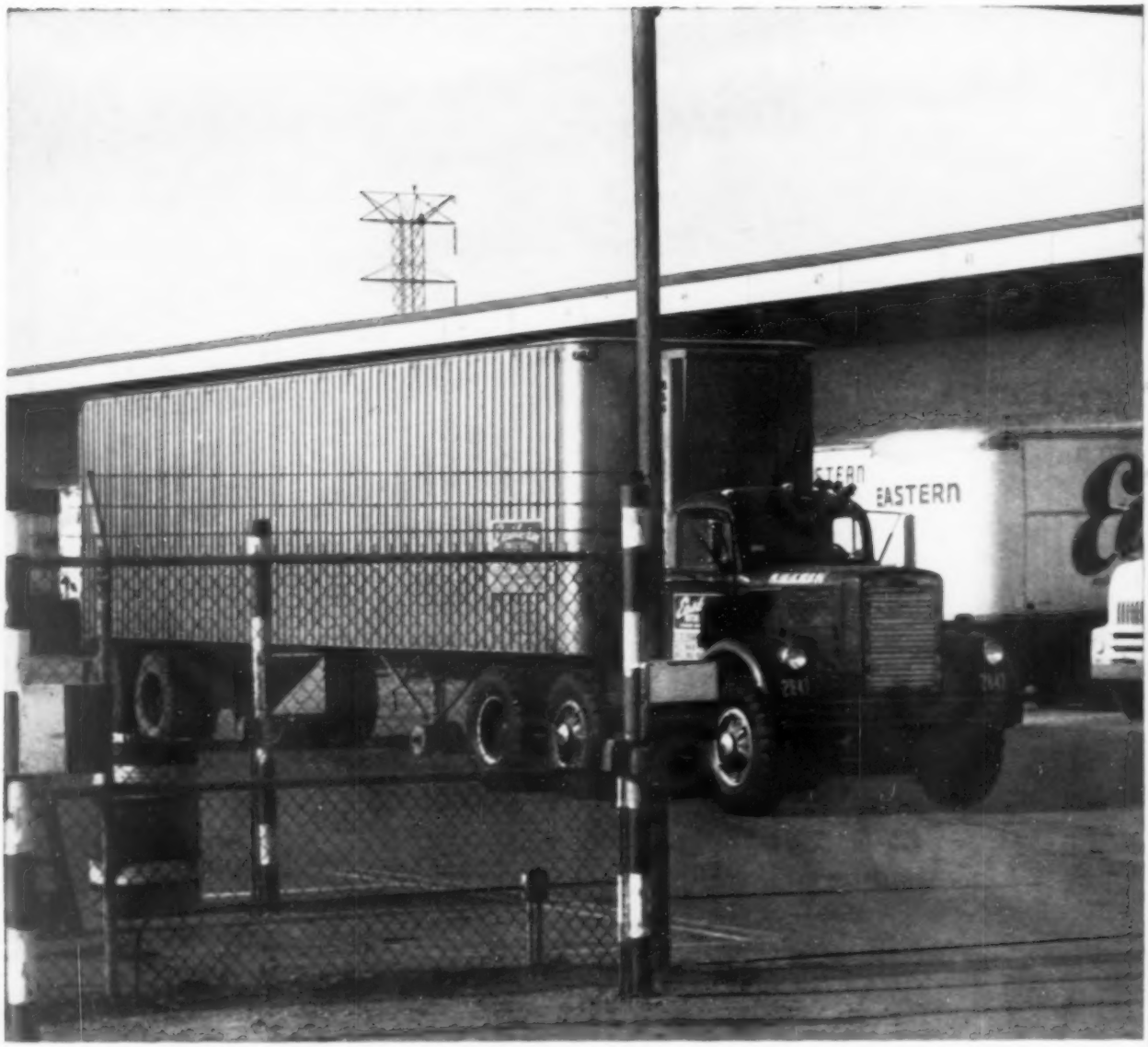


The new Holley road speed governor, engineered to regulate actual road speed, is designed to eliminate mechanical trouble and prevent malfunctioning.

For more than half-a-century original equipment manufacturers for the automotive industry.

HOLLEY Carburetor Co.

T-8 11955 E. NINE MILE ROAD • WARREN, MICHIGAN



A section of the Eastern Express terminal in Chicago, Illinois

Eastern Express, Inc., one of the largest motor

RAYON CORD

Eastern Express, with general offices in Terre Haute, Indiana, operates mostly between industrial points in the Midwest and in the Atlantic States, New England excluded. Eastern Express trucks average over 30 million miles yearly, or the equivalent of more than three times around the world every day. By far the great majority of this mileage is covered by rugged RAYON CORD TIRES!

Eastern Express finds Rayon Cord Tires pay off in greater mileage—average original mileage is 67,000, with an average of one-and-a-half recaps per tire. But it is Rayon's *safety* that pays even greater dividends to Eastern Express. Here is proof: Eastern is the proud owner of a tire performance and safety and claim record—*the first major carrier to go over 2,000,000 miles without an accident of any kind!*

Eastern is the first major carrier operating between large industrial areas to receive a safety trophy from

One of Eastern's largest trailer trucks, and it rides on Rayon!

Eastern receives trophy for 2,086,134 accident-free miles.

carriers in the U. S. proves

TIRES PAY OFF!

National Freight Claims Council of A.T.A. Eastern has also been awarded a trophy from Transportation Underwriters for having gone 2,086,134 miles without an accident.

This impressive safety record is largely due to Rayon's dependability and Eastern's strict tire-checking program. Each tire carries a decal which establishes correct pressures and rotation dates for that particular tire.

AMERICAN RAYON INSTITUTE INC.

Records show that more truckers use RAYON CORD TIRES than any other. They can rely on Rayon because Rayon pays off!

AMERICAN RAYON INSTITUTE, INC.
350 Fifth Avenue, New York 1, N. Y.

Short Reports on New Developments...

. . . in tire advice for commercial fleets . . . trailer manufacturer's move to air suspension . . . Russia's development of radical engine to cut down fuel costs . . . carburetors designed to eliminate nitrogen oxides . . . mileage alloted for Interstate Highway System . . . Michigan's law to define leasing fleets and "for hire" carriers

• NOW YOU CAN HIRE an outside service to come into your shop and advise you on tire purchasing and maintenance. Mitchell Enterprises, Inc., in Denver, has announced that it has a consulting service available for commercial fleets. Head of the new firm is Lee W. Mitchell, formerly manager of tire research and development for Gates Rubber Co. "The aim of the company," says Mitchell, "is to counsel with companies on tire problems such as purchasing methods, types and care of tires and improving record systems for cost accounting."

Air suspension is being offered as optional equipment for trailers in

POWER

ELECTRIC

SIZE 34U

1" DRIVE

This most powerful electric Impactool makes the toughest jobs easy with 900 "rotary" impacts per minute. You can't burn out motor by overloading. You *can* see for yourself why there's no other tool like it. Ask your I-R jobber.

18-732

ONLY INGERSOLL-RAND GIVES YOU
5 SIZES IN ELECTRIC IMPACTOOLS
8 SIZES IN AIR TOOLS

either single or tandem assembly units. Copco Trailer Div., of Copco Steel & Engineering Co., in Detroit is offering the new system for immediate delivery to be use on either new trailers or those already in operation. No lubricating fittings are said to be necessary with the new suspension system, and lower maintenance costs are claimed.

More than satellites is coming out of Russia, if Moscow's claims mean anything. Word is that the Reds have a radical new ignition and fuel system for use in trucks. The Russian engines employ twin carburetors designed in a single unit. One of the carburetors feeds a weak fuel mixture to the cylinders through a conventional route. Ratio of this mixture is well below ignition point.

The other carburetor feeds a rich mixture through an integral channel in the block to supercharging cylinders mounted above the main cylinders. This rich mixture is forced through a valve into an ignition ante-chamber venting into the main cylinder. When the main piston reaches the point of maximum upstroke, the rich mixture is ignited in the ante-chamber and injected into the cylinder under pressure, causing the weak mixture to ignite.

The designers claim not only substantial fuel saving but also the elimination of pre-ignition problems and the ability to operate efficiently on 6-octane gasoline. The engine is said to run cooler, too. Its makers claim a fuel saving as high as 25% in road tests, but one Russian engineer admits that this saving has not been constant.

"Maximum performance" carburetors, designed to eliminate oxides of nitrogen, are claimed to have increased fuel economy by 4.1 mpg in tests conducted by General Motors Research Staff's

Continued on page 178

ONLY Ingersoll-Rand GIVES YOU

ELECTRIC and AIR TOOLS

FOR THE TOUGHEST JOBS

AIR/SIZE 334 . . . 1¼" DRIVE

This powerful air Impactool provides full power in either direction and easily removes frozen nuts on largest fleet jobs.

AIR/SIZE 7500 TIRE TOOL

No more slugging matches with a sledge hammer to get the tires loose from rims. Now you can knock them loose the quick, easy way, with these powerful, lightweight, air-powered Tire Tools.

AIR/SIZE 8000 TIRE TOOL

18-732-1

Ingersoll-Rand
11 Broadway, New York 4, N.Y.

Short Reports . . .

Continued from page 177

Fuel and Lubricants Dept. The new carburetor is said to have reduced oxides of nitrogen as much as 90%, providing a rich air-fuel mixture for all driving conditions. However, the exhaust gases produced contained higher carbon monoxide concentrations than those from a car using a standard carburetor. GMC engineers believe that it is possible to use a catalytic converter in combination with "maximum performance" units to handle both the carbon monoxide and unburned hydrocarbons.

2102 more miles have been made a part of the Interstate Highway System, completing the allotment of the entire 41,000 miles authorized. Of the new mileage, 1000 miles are part of the authorized expansion and 1102 miles are the result of the adoption of more direct routes.

The new allotments covered routes from:

- Ellensburg, Wash., to the vicinity of Pendleton, Ore.
- Baton Rouge, La., eastward to Mobile, Ala.
- Denver, Colo., to the vicinity of Cove Fort, Utah.
- Fargo, N.D., to Souix Falls, S. D.
- Canton, Ohio, to Charlotte, N. C.
- Pittsburgh to Erie, Pa.
- Ogden to Echo Junction, Utah.
- Nashville, Tenn., to Cairo, Ill.
- San Antonio to Corpus Christi, Texas.

Approval was also granted to urban connections in Chicago, Philadelphia, St. Louis, Washington, D. C., Kansas City, Louisville, Omaha and Duluth, in addition to circumferential or belt routes for cities of more than 2,000,000 population where routes already designated fail to provide such facilities.

Formula to end confusion has been adopted in Michigan to draw a sharp line between non-carrier vehicle leasing and carrier operations. The new definition is an attempt to prevent lessors from operating as "for-hire" carriers.

Now You Can Find Out Fast
Check the new and improved "up front" departments that start this month. You'll find a wide range of fleet news and views on pages 12, 16, 20, 24, and 28.

Here's how to get tire protection!

THE EVERHOT TIRE BRANDER is the only method of marking your tires permanently to permit tracing and enable you to keep track of every tire. Start branding today. Be sure that you get full value out of every tire.

Remember that a single year of high tire loss can put a big hole in your earnings. Prevent its happening to you. Write for details and free sample of tire mileage record forms.

CUT TIRE COSTS By BRANDING

● Many fleet owners are protecting their tire dollars with the Everhot Tire Brander. They get the benefit of all six points listed. It pays every day.

1 Know the exact mileage you get on each tire.

2 Know the cost per mile of every tire in service.

3 The EVERHOT Tire Mileage Record System gives you complete details on each tire.

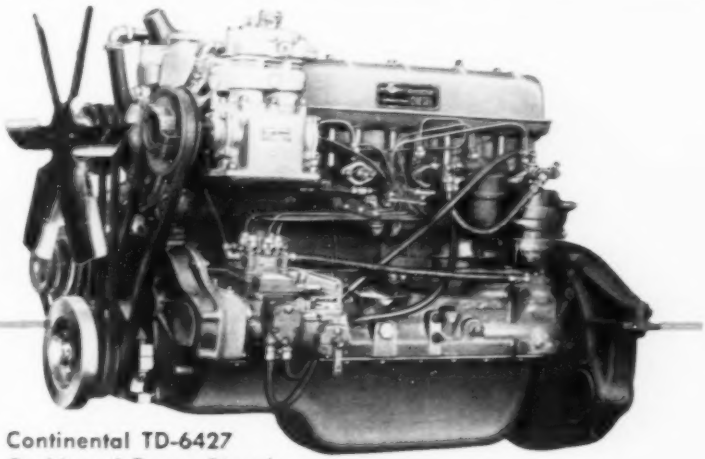
4 You combine the EVERHOT System of branding and record keeping. You know at a glance where and how your tire costs can be reduced.

5 It's simple to check every tire in storage once they are branded.

6 Branding and record keeping assures your receiving full use of every dollar invested in tires.

EVERHOT MFG. CO., MAYWOOD, ILL.

Cushioned® Power IS SMOOTHER POWER



Continental TD-6427
Cushioned Power Diesel

TRANSPORTATION DIESEL ENGINES

Model	Cyl.	Bore	Stroke	Displ.	Bare Engine H.P.
TD6427	6	4 1/16	4 1/8	427	116.0 @ 2400 RPM
RD6572	6	4 1/8	5 1/2	572	172.0 @ 2400 RPM
VDR603	8	4 1/8	4 1/8	603	182.0 @ 2800 RPM
SD6802	6	5 9/16	5 1/2	802	225.0 @ 2200 RPM

TRANSPORTATION GASOLINE ENGINES

Model	Cyl.	Bore	Stroke	Displ.	Bare Engine H.P.
N4062	4	2 1/8	3 1/2	62	26.3 @ 3500 RPM
Y4069	4	2 1/2	3 1/2	69	28.0 @ 3500 RPM
Y4091	4	2 5/8	3 1/2	91	36.0 @ 3400 RPM
F4124	4	3	4 1/8	124	47.0 @ 3200 RPM
F4140	4	3 1/16	4 1/8	140	52.0 @ 3200 RPM
F4162	4	3 5/16	4 1/8	162	58.0 @ 3200 RPM
F6186	6	3	4 1/8	186	77.0 @ 3500 RPM
F6209	6	3 1/16	4 1/8	209	90.0 @ 3500 RPM
F6226	6	3 3/16	4 1/8	226	98.8 @ 3500 RPM
F6244	6	3 7/16	4 1/8	244	105.0 @ 3750 RPM
M6271	6	3 5/8	4 1/8	271	96.5 @ 3000 RPM
M6290	6	3 3/4	4 1/8	290	108.0 @ 3000 RPM
M6330	6	4	4 1/8	330	125.0 @ 3000 RPM
M6363	6	4	4 11/16	363	146.0 @ 3000 RPM
B6371	6	4 1/8	4 1/8	371	123.5 @ 3000 RPM
B6427	6	4 1/16	4 1/8	427	142.0 @ 3000 RPM
K6271	6	3 5/8	4 1/8	271	114.5 @ 3200 RPM
K6290	6	3 3/4	4 1/8	290	123.0 @ 3200 RPM
K6330	6	4	4 1/8	330	147.0 @ 3200 RPM
K6363	6	4	4 11/16	363	162.0 @ 3200 RPM
T6371	6	4 1/8	4 1/8	371	143.8 @ 3000 RPM
T6427	6	4 1/16	4 1/8	427	170.0 @ 3000 RPM
U6501	6	4 1/2	5 1/4	501	178.0 @ 2600 RPM
R6513	6	4 1/2	5 1/8	513	192.2 @ 2800 RPM
R6572	6	4 1/4	5 1/8	572	220.0 @ 2800 RPM
R6602	6	4 1/8	5 1/8	602	232.0 @ 2800 RPM
S6749	6	5 1/8	5 1/2	749	250.0 @ 2800 RPM
S6820	6	5 1/8	5 1/2	820	275.0 @ 2800 RPM
V8603	8	4 1/8	4 1/8	603	240.0 @ 3200 RPM

A tip from fleet operators who have switched to Continental Diesel: When you're ready to "go Diesel," it pays, in more ways than just initial cost, to go the whole distance and get exclusive Red Seal Cushioned Power. In that way, you obtain fullest measure of ALL the advantages identified with engines of Diesel type. You use less fuel than with conventional Diesels. You have more cargo capacity because you're lugging less engine weight. And the wide interchangeability of parts between Cushioned Power Diesels and companion models in the Red Seal gasoline engine line expedites maintenance and sharply reduces parts cost.

•

AUTHORIZED SERVICE
and genuine Red Seal parts available from coast to coast.

CONTINENTAL MOTORS · Powerful as the Nation · AMERICA'S STANDARD

Continental Motors Corporation
MUSKEGON, MICHIGAN

WORLD'S LEADING INDEPENDENT MANUFACTURER OF INTERNAL COMBUSTION ENGINES, CONTINENTAL MOTORS OPERATES PLANTS IN ATLANTA, DALLAS, DETROIT, MILWAUKEE, MUSKEGON, AND TOLEDO, AND IN ST. THOMAS, ONT., PRODUCING AIR-COOLED AND LIQUID-COOLED ENGINES FOR USE ON LAND, AT SEA AND IN THE AIR.

YOU CAN DEPEND UPON

because Wagner Products are by manufacturers of trucks,

Wagner Lockheed ... *the best*

LOCKHEED HYDRAULIC BRAKE PARTS, FLUID and BRAKE LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS

WAGNER QUALITY...

used as original equipment trailers, cars and buses

In servicing any make or model vehicle having hydraulic brakes—you'll save time, money and trouble by standardizing on Wagner Lockheed Hydraulic Brake Parts, Fluid, and Lining. You can depend upon these products because they are used as original equipment. And the same top-quality is quickly available to you for replacement and service needs.

WAGNER LOCKHEED BRAKE PARTS—cylinders, cups, pistons, springs, washers, hose, etc.—are manufactured to the same specifications as parts used in complete assemblies for original equipment.

WAGNER LOCKHEED BRAKE FLUID—surpasses S.A.E. specifications. It's chemically balanced for dependable performance under *all* operating conditions.

WAGNER LOCKHEED BRAKE LINING—is unsurpassed for quick, safe, smooth stops, and extra long service life even when subjected to the high temperatures of high speed braking. Available in sets, rolls, blocks, slabs, cut segments, and exchange shoe sets.

FOR DETAILS on this complete line, consult your Wagner supplier—or send for a *free copy* of Bulletin AU-1.

known name in brake service

ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES

Wagner Electric Corporation
6480 PLYMOUTH AVENUE, ST. LOUIS 14, MO., U.S.A.
(Branches in principal cities in U.S. and in Canada)

Please send us Bulletin HU-411 on Hydraulic Brake Servicing. We understand that there is no charge or obligation.

NAME _____

FIRM NAME _____

ADDRESS _____

CITY & STATE _____

Geared by FULLER . . .

415 durable Fuller Transmissions cut Motor Cargo's maintenance costs

"The 415 Fuller 5-speed 5-A-43 Transmissions in our fleet give a long useful life of approximately 325,000 miles in 3 years, before we put them on city pick-up work for another 3 years. Maintenance cost is extremely low," says Joseph B. Boynton, Superintendent of Equipment and Garages for Motor Cargo, Inc., Akron, Ohio.

Fuller Transmissions provide not only long and satisfactory service but also they help pull the payloads through on schedule. *Right* gear ratios, smoother shifting, faster trip time, longer engine life . . . add up to greater profits for Fuller Transmission users.

Ask your truck dealer now for full details on the most efficient, easiest-shifting Fuller Transmission . . . designed with your specific job and equipment in mind.

Above: Motor Cargo rig—International Tractor is equipped with 5-A-43 Fuller Transmission.

FULLER

TRANSMISSIONS

FULLER MANUFACTURING CO. Transmission Division • Kalamazoo, Mich. Duff Drop Forge Div., Milwaukee 1, Wis. • Shuler Axle Co., Louisville, Ky. (Subsidiary) • Sales & Service, All Products, West. Dist. Branch, Oakland 6, Cal. and Southwest. Dist. Office, Tulsa 3, Okla.

Reactive chemicals . . .

. . . are hauled in these giant "rubber" containers from the Stauffer Chemical Co. plant in Niagara Falls to National Distillers and Chemical Co., Ashtabula, Ohio. Here's another use for the U. S. Rubber Co. line of neoprene-coated, synthetic rubber containers. Each container holds 10,000 lb of zirconium tetrachloride. Since this chemical is reactive it must be blanketed with an atmosphere of nitrogen. Atmospheric pressure collapses the bin as it is emptied, and it's shipped flat on the return trip. Inner surface of the Sealdbin can be made of a variety of special rubber compounds, making it adaptable to handling a number of products, including highly corrosive chemicals.

Billboard space . . .

. . . on this trailer has been sold to American Tobacco Co. for one year. The trailer is one of 10,000 units owned by 20 separate trucking companies which, earlier this year, organized themselves into American Trailer Advertising, Inc. The cigarette company has contracted for space on 1050 of the trailers. Each truck travels about 60,000 miles a year. It is estimated that through this advertising medium the Hit Parade messages are seen by some 6,825,000 people daily. (Rear panels, processed with "Scotchlite" provide around-the-clock advertising.) Hit Parade is the second national advertiser to use the trailer billboard space. Pabst Brewing Co. had signed an earlier contract.

Automatically Records every minute of

TRAVEL TIME IDLE TIME . . .

can even record engine idling time!

Here's the business-like way to check up on delays and overtime. It also gives you a basis for improving scheduling.

Many companies have bought these by the dozen and now have hundreds in daily use. Good drivers like the SERVIS RECORDER and its record of a good day's work.

This "Time Clock" is called

SERVIS RECORDER

It makes a clear record on permanent charts. Motion of your truck activates the recorder. No mechanical hook-up is involved. *It couldn't be simpler or more dependable.* Write today for "The Instrument that Cuts Truck Costs."

THE SERVICE RECORDER COMPANY
1013G Rockwell Avenue • Cleveland 14, Ohio

getting there is only half the job!

Copeland refrigeration does the rest . . . keeps food fresh!

The burro is a patient beast with seemingly no load limit. But he'll never break any speed records, and the perishables he transports will have lost some of their appeal when they reach their destination.

Today fleet operators and food processors know freshness and profit go hand in hand. So they protect in-transit payloads with refrigerated trucks equipped with dependable Copeland units.

You can count on Copeland cooling *all the way* . . . at lowest cost per mile.

SINCE 1918 **Copeland** REFRIGERATION CORPORATION, Sidney, Ohio

WRITE FOR SPECIFICATIONS AND PERFORMANCE DATA

CAPACITY Choose from ¼ to 3 H.P. in Copelametic, direct-drive accessible hermetics, or belt-driven models. Copelametic Model TR-100 1 H.P. shown.

DEPENDABILITY Thousands of Copeland units now in use have given years of trouble-free, over-the-road service—proof of superior engineering, ruggedness and dependability.

AVAILABILITY Our unexcelled coast-to-coast network of 130 wholesalers and over 25,000 refrigeration dealers means the best in service when you need it. It's only a phone call away.

Install the Flashers ALL Car Manufacturers Use!

That's right! Every American car manufacturer uses Tung-Sol Flashers for initial equipment. Naturally it makes sense to use the same flashers when it comes to your replacement work. Tell your supplier you'd rather have the same flashers the car manufacturers specify in the first place. Tell him you'd rather have Tung-Sol Flashers.

Team up with the best

Round out a profitable lighting service with...

TUNG-SOL signal flashers

ELECTROSWITCH DIVISION, TUNG-SOL ELECTRIC INC. NEWARK 4, N. J.

1958 FLEET OWNER DATA BOOK

Coming in MARCH..

BIG, ANNUAL

Watch for these

15

IMPORTANT FEATURES

you will want to refer to all year round

1

TRUCK STOPS IN U.S.

This comprehensive list is invaluable to truckers in mapping routes and setting up schedules.

4

BUS STATISTICS

Illustrates trends in transit and inter-city operations. Also includes the famous common carrier and school bus censuses.

7

TURN SIGNAL LAWS

An up-to-the-minute state by state listing of all turn signal laws. Changes from 1956 to 1957 requirements will be shown.

10

DRY ICE OUTLETS

Since refrigerated shipments are increasing steadily, this list of all known dry ice outlets will be extremely helpful to many fleet owners.

13

SPEC. AND SERVICE DATA

More, and more detailed information on this important subject will make this truck, bus and passenger car specification data the most complete ever printed.

DATA BOOK ISSUE OF FLEET OWNER

2 **ASSOCIATION INDEX**

Fleet owners often want to contact various truck and bus associations. This list of such organizations will facilitate operators in reaching the right parties.

3 **TOLL ROADS**

Location of all toll roads in U. S., together with charges for various types of vehicles. Lists future toll roads with probable dates of completion.

5 **GOVERNMENT AGENCIES**

Listing of government agencies which a fleet operator might want to contact. Indicates the proper party to reach, his address, and phone number.

6 **GUIDES TO GOOD MANAGEMENT**

A compilation of government literature dealing with the problems of small and big business — includes employee relations, accounting, materials handling, business statistics, etc.

8 **FILMS**

All available films which a fleet owner could use in training or public relations work . . . and where to obtain them.

9 **SAFETY EQUIPMENT**

Latest regulations for flares, flags, lights, mirrors and windshield wipers . . . listed state by state.

11 **TRAINING SCHOOLS**

List of schools run by manufacturers to educate fleet personnel in the use of products and tools. Includes dates of courses, cost, qualifications.

12 **SIZE AND WEIGHT LAWS**

This important subject is thoroughly covered by a complete listing of truck size and weight regulations for each state.

14 **MUD FLAP LAWS**

State laws change quickly. This listing will bring fleet operators of trucks and buses up-to-date on additions or revisions, state by state.

15 **VEHICLE INSPECTIONS**

What states require vehicle inspections? What is required? What dates are they held in each state? This listing provides the answers.

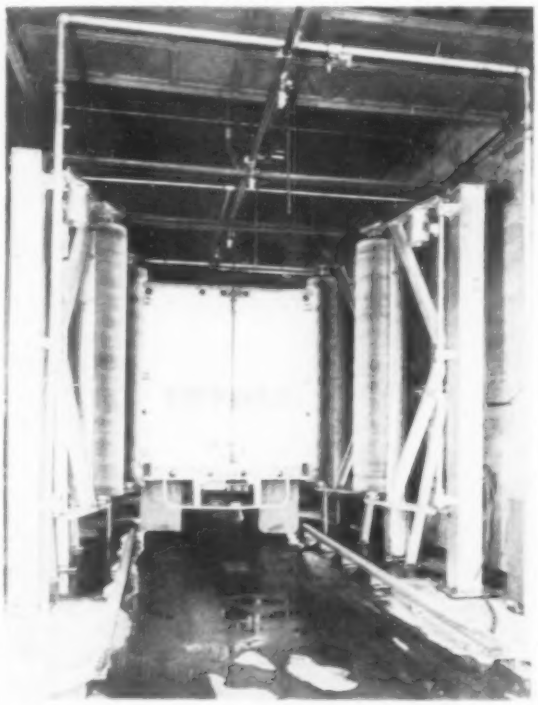
WASHING TRAILERS AND TRUCKS

Chicago's largest retail coal dealers, the J. W. Petersen Coal and Oil Company, actually *Simonize* their coal trucks, this being a hard wax polish.

The Ross and White Company have advocated for 24 years, the mechanical washing of vans and trailers, buses and trains, it being good housekeeping and fine advertising for these companies.

During that period we have designed and developed the finest patented washing equipment available.

Ask us for prices of these labor savers.



MANUFACTURED EXCLUSIVELY BY

ROSS AND WHITE COMPANY.

CHICAGO DAILY NEWS BUILDING, CHICAGO 6, ILLINOIS

The Stock Market: Fleet Price Listing

HERE'S AN EXPANDED LISTING of fleet stock prices that includes 50 truck and bus companies. Quotations are as of December 19, 1957, from Shields & Co., 44 Wall St., New York, N. Y. The columns of figures, reading left to right, show total dividends paid to date in 1957, current bid and asked prices, highest and lowest prices quoted for the stock in 1957. Abbreviations in parentheses after each company name indicate where that stock is traded: OTC (over the counter), NY (New York), Phila (Philadelphia), Balt (Baltimore, Bost (Boston), Cinc (Cincinnati), Amer (American), Mid-West (Mid West), Pac Coast (Pacific Coast).

				1957	
	Div.	Bid	Asked	High	Low
AssocTransp(OTC)	2.60	3⅝	4⅛	6	3¾
AssocTruckLi(MidWest)	.35	8⅝	9	—	—
BaltTrans(Phila,Balt)	.75	6¾	7⅛	11⅞	6¾
CentWisMotTransp(OTC)	.30	5⅛	5⅝	—	—
CincTrans(Cinc)	.30	4¼	4⅝	4¾	3¾
CityCoachLi(OTC)	.80	8½	10½	—	—
ConsolFrtwys(OTC)	.80	13	13½	18⅛	11½
ContTranspLi(OTC)	.70	7⅝	8	—	—
CooperJar(Amer)	.37½	7⅜	7¾	9½	6½
DallasTrans(OTC)	.35	5	5⅜	5¼	4½
DenverChi(OTC)	1.25	18¼	19	24	16
Denver-Tramway(OTC)	—	½	—	—	—
Det&CanadaTun(OTC)	1.00	12¼	12⅝	16½	12¼
EastMassStRwy(Bost)	—	¼	1⅜	1⅝	70
FifthAvCoach(NY)	2.50	19⅞	20	29¼	20
FtWorthTrans(OTC)	.40	4⅜	4¾	—	—
GaryRwys(MidWest)	.45	2¾	3¼	—	—
Galveston-Houston(OTC)	1.00	6¾	7½	8¼	5¾
Greyhound(NY)	1.00	14⅛	14¼	16⅞	14¼
IndianapTrans(OTC)	—	8	12	—	—
InterstaMotFrt(OTC)	1.00	14⅜	14⅞	15⅝	12
InterstaMotLi(OTC)	.45	10¾	11¼	—	—
KansasCityPS(OTC)	—	2¾	3	4¼	3
LosAngTrans(OTC)	1.40	17½	18½	18⅛	15½
McLeanTrucking(OTC)	.51	8⅝	9	10¾	7⅜
MemphisStRwy(OTC)	.15	2	2½	2½	1¾
NatCityLi(NY)	2.00	19⅝	19⅞	24⅝	20⅛
NiagFrontTrans(OTC)	.60	7¾	8¾	9¼	7½
OverniteTransp(OTC)	.42	11½	12	—	—
PIE(OTC)	.80	10⅝	11	15¼	9⅝
PhilaTransp(Phila,Balt)	—	4⅝	4⅞	10	4⅞
PittRwys(Amer)	.50	5	5⅛	7½	5
PortlandTrans(OTC)	.25	4⅝	5⅛	—	—
RwyEquip&Rlty(PacCoast)	.50	5¾	6½	6	4½
RoadwayExp(OTC)	.70	7⅝	8	9¾	7⅞
RochesterTrans(OTC)	1.00	4	4¾	21⅛	16½
RyderSyst(OTC)	1.00	13¼	13⅝	19⅜	13¾
SanAntonioTrans(OTC)	.60	9	10½	—	—
StLouisPS(MidWest)	1.50	6⅝	6¾	12½	8⅜
SyracuseTrans(OTC)	2.00	17½	—	19¾	14¾
TransconFrtLi(OTC)	.75	14½	15½		—
TransconBusSys(OTC)	—	2	2⅜	—	—
Twin-CityRapTrans(NY)	1.80	10¾	11	17	12⅝
USFrtLi(NY)	1.25	22	22½	—	—
USTruckLi(OTC)	1.60	18¾	19¾	24¼	18½
UnitedTraction(OTC)	—	11	14	—	—
UnitedTrans(OTC)	.60	4½	4⅞	5	4¼
UticaTrans(OTC)	.30	3½	—	—	—
WatsonBrosTransp(OTC)	.44¾	6	6⅜	7¾	5¾
WestTownsBus(OTC)	—	2½	3½	—	—

up-to-date on additions or revisions, state by state.

state? This listing provides the answers.

THE MOST IMITATED PISTON IN THE WORLD...

8 *years of*

PROVEN PERFORMANCE

ESTABLISH THESE NEW INDUSTRY STANDARDS...

1 LOWER OPERATING COSTS

2 LONGER PISTON LIFE

3 LESS DOWN TIME

4 POSITIVE TOP RING GROOVE PROTECTION

NIRESIST IRON ARMORED TOP RING BAND INTEGRALLY CAST AND CHEMICALLY BONDED TO ALUMINUM PISTON

DUALOY MEETS EVERY DEMAND FOR

- HIGHER HORSE POWER
- TURBO CHARGING
- HIGHER COMPRESSION RATIOS
- HIGHER OPERATING TEMPERATURES

IN GASOLINE - DIESEL - LPG HEAVY DUTY ENGINES

DUALOY

THE 1st BI-METALLIC MOLECULAR BONDED PISTON

Manufactured by

UNITED ENGINE & MACHINE COMPANY

310 PREDA STREET · SAN LEANDRO, CALIFORNIA

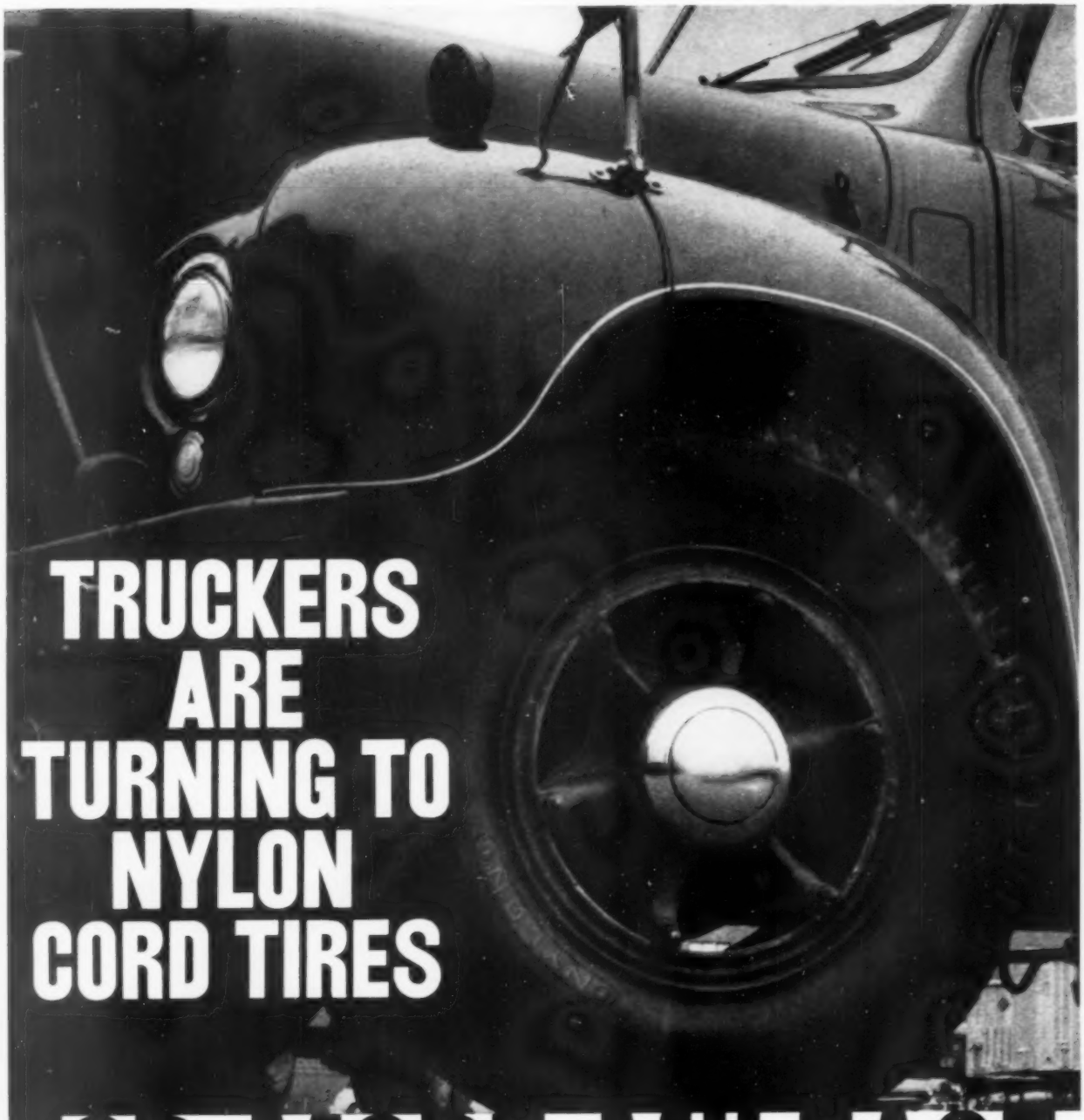
SILV-O-LITE

BETTER PISTONS SINCE 1922

DUALOY

FACTORY WAREHOUSE STOCKS

CAMBRIDGE, MASS.—ASSOCIATED PARTS CORPORATION, 733 Concord Ave.; **L. I. CITY, N. Y.**—EASTERN WAREHOUSE SERVICE, Inc., 35-13, 37th Ave.; **CHARLOTTE, N. C.**—L. S. SLOOP, 1727 East 7th St.; **ATLANTA, GA.**—JOBBER'S SERVICE, 523 Simpson Street, N.W.; **CHICAGO, ILL.**—AUTOMOTIVE WAREHOUSING, 2645 South Wabash Ave.; **ST. LOUIS, MO.**—AUTOMOTIVE WAREHOUSING CO., 3150 Locust Blvd.; **DALLAS, TEX.**—UNITED WAREHOUSES, INC., 9012 Sovereign Row; **SAN ANTONIO, TEX.**—SAN ANTONIO PARTS WAREHOUSE, 408 South Flores St.; **DENVER, COLO.**—WAREHOUSE SERVICE CO., 1138 - 8th St.; **PHOENIX, ARIZ.**—AUTOMOTIVE WAREHOUSING SERVICE, 620 W. Van Buren St.; **LOS ANGELES, CALIF.**—GENE'S DISTRIBUTING CO., 2720 S. San Pedro St.; **PORTLAND, ORE.**—AUTOMOTIVE DISTRIBUTING CO., 351 N. W. 12th Ave.; **SEATTLE, WASH.**—EVERGREEN WAREHOUSE DIST., INC., 620 East Pike St.



TRUCKERS ARE TURNING TO NYLON CORD TIRES

FOR MORE MILEAGE

Clocked: hundreds of thousands of miles with minimum repair and replacement. That's the record already set by nylon cord tires. It's this performance that's behind the trucking industry's growing shift to nylon.

It illustrates this simple fact: start with a superior material and you end with a superior product. In nylon you have the toughest, most durable cord fiber industry and science have yet developed. Nylon has superior tensile strength, superior flex-resistance, heat-resistance, moisture-resistance . . . all the crucial properties tires need to check blowouts, to stand up to rugged long-distance hauling, gruelling road and weather conditions. The facts are as clear as your

THE CHEMSTRAND CORPORATION

GENERAL SALES OFFICES: 350 FIFTH AVE., NEW YORK 1, N. Y. • DISTRICT SALES OFFICES: 350 Fifth Ave., New York 1; 3½ Overwood Road, Akron, Ohio;

AT LESS COST

windshield. With nylon cords, your tire dollar buys more trouble-free mileage, more safety, more recaps.

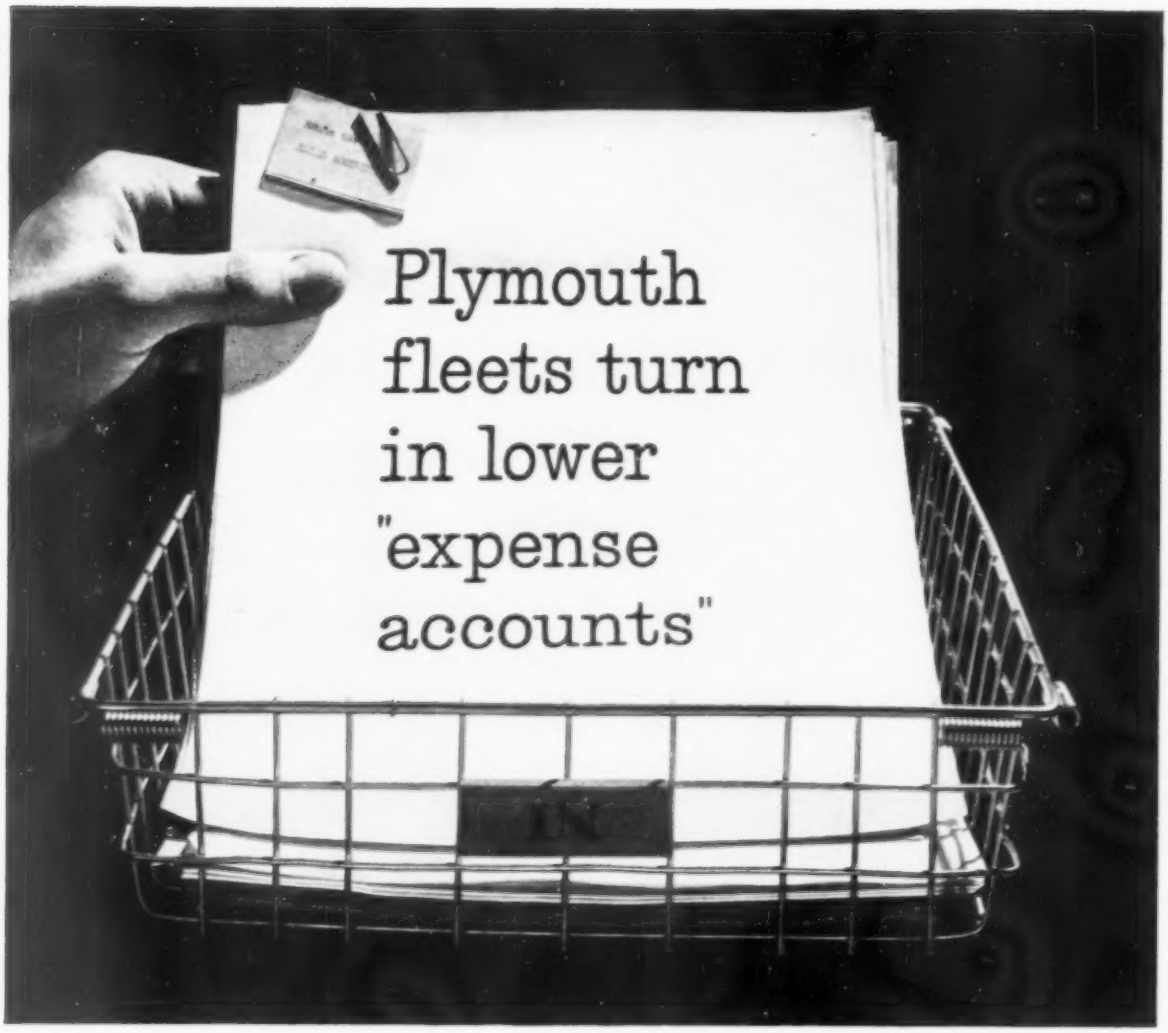
Today—a growing share of the nylon going into tire cord is produced in the one wholly unified nylon plant in the country, under the most modern production facilities, by a major nylon yarn supplier: The Chemstrand Corporation.

It boils down to this: when your profits ride on a tire . . . you're way ahead with nylon cords.

CHEMSTRAND NYLON

CHEMSTRAND NYLON®

197 First Avenue, Needham Heights, Mass.; 129 West Trade Street, Charlotte, N. C. • PLANTS: CHEMSTRAND® NYLON—Pensacola, Fla.; ACRILAN® ACRYLIC FIBER—Decatur, Ala.



Fleet records repeatedly prove it. Plymouth owners find lower "entries" for gas and oil, for routine maintenance, for major repairs.

And this year's Plymouth is the most ruthless cost-cutter of all. Mobilgas Economy Champ, Plymouth now brings you a new Fuel-Saver Choke that slashes gas consumption even more. Standard on all V-8's, this miserly choke can chop real dollars off your fuel bill.

These big new Plymouths belong on your payroll for other important reasons. Their years-ahead beauty impresses Mr. Prospect and Mr. Customer, helps put them in receptive moods. And it pays off again at resale time.

In addition, your salesmen will probably be more productive in new Plymouths. Torsion-Aire is the explanation. This revolutionary suspension system (*no* extra cost) floats them over the roughest roads, keeping the car always level and absorbing bumps *for* them. Result: far less driver fatigue—and, very likely, more signed orders.

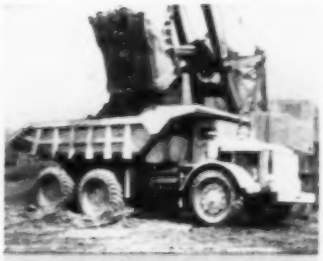
See your Plymouth Dealer. Discover how little it costs to own "low-expense-account" Plymouths.

Costs go down . . . sales go up . . . when you go **Plymouth**

POWER STEERING
That Can Take It

For TRUCKS
That Can Take It

DART

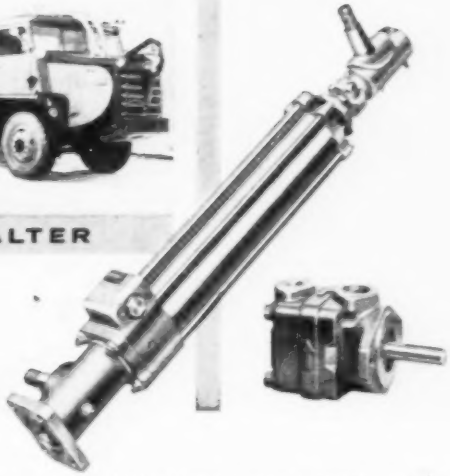


EUCLID

MACK

OSHKOSH

WALTER



VICKERS HYDRAULIC POWER STEERING

The hydraulic power steering systems used on trucks like these have to be able to take it because the vehicles are required to take it. They are built for the rough, tough jobs . . . and the hydraulics must match. Heaviest axle loads . . . off road operation . . . the most difficult steering conditions possible are easily mastered by the power, inherent high quality, dependability and tough durability of Vickers Hydraulic Power Steering Systems.

Steering is made "fingertouch" easy and safe. Road reaction can't reach the driver through the steering wheel. Obstructions can't cause swerving. Driving is not a wrestling match, so the driver gets more work done with less fatigue.

The superior design and rugged construction of the Vickers Hydraulic Power Steering Booster assure dependability, long life and low maintenance. Typical are the oversize piston rod and the extra large control valve.

The Vickers Vane Type Pump has hydraulic balance that eliminates pressure-induced bearing loads and assures long life with minimum maintenance . . . the key to less downtime. Correct running clearances (both radial and axial) are automatically maintained, providing high efficiency throughout pump life.

Get all the facts about the advantages of Vickers Hydraulic Power Steering. Ask for Bulletin M5101A.

VICKERS INCORPORATED
DIVISION OF SPERRY RAND CORPORATION
Mobile Hydraulics Division
ADMINISTRATIVE and ENGINEERING CENTER
Department 1422 • Detroit 32, Michigan

Application Engineering Offices: • ATLANTA • CHICAGO • CINCINNATI CLEVELAND • DETROIT • GRAND RAPIDS • HOUSTON • LOS ANGELES AREA (El Segundo) • MINNEAPOLIS • NEW YORK AREA (Summit, N.J.) • PITTSBURGH AREA (Mt. Lebanon) • PORTLAND, ORE. • ROCHESTER • SAN FRANCISCO AREA (Berkeley) • SEATTLE • ST. LOUIS • TULSA
IN CANADA: Vickers-Sperry of Canada, Ltd., Toronto and Montreal

7841

ENGINEERS AND BUILDERS OF OIL HYDRAULIC EQUIPMENT SINCE 1921

FLEET OWNER Searchlight Section

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America's Largest GM *fuel injector rebuilder*

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diesel service incorporated

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SAVE MONEY WITH INTERSTATE'S SPECIAL FLEET PRICES.
WRITE FOR THE NAME OF THE DEALER IN YOUR AREA.

GENERAL MANAGER (TRUCK LEASING)

Sound, aggressive truck and car rental leasing operation located in Tennessee and having well established air and hotel locations in several major branches seeks a General Manager. Will manage home office location and branches, buy and dispose of equipment, and direct sales, repairs and maintenance and accounting. Desire experience managing a car or truck rental and leasing operation, with truck experience preferred. Truck or car dealer experience also considered. Prefer age 35-45. Appropriate salary and bonus offered. Please send resume in complete confidence.

P-6796 FLEET OWNER
520 N. Michigan Ave., Chicago 11, Ill.

GMC 6x6 NAMED ARMY'S BEST ALL-AROUND TRUCK!

UNUSED!

GUARANTEED! NEW-TRUCK PERFORMANCE!

- **Extra Pull Power!**
- **Double Traction for Mud!**
- **Special "Off Road" Design!**

From Government Storage — these all-wheel-drive GMC 2½ ton 6x6's were specially designed by the U. S. Army to take the roughest terrain in all kinds of weather. These unused 6x6's can do the same for you in all your truck jobs, whether in a muddy field or along a super highway.

Processed — by Memphis Equipment Company — down to the last bolt to assure you of receiving the finest unused GMC 2½ ton 6x6 trucks available today. Parts available anywhere in the nation.

For specifications, prices, delivery, write, wire or phone collect
JAckson 5-7841

MILTON Y. TOOMBS, JR.
Sales Manager

MEMPHIS EQUIPMENT Company

ARMY TRUCKS • PARTS
CONSTRUCTION EQUIPMENT

766 SO. THIRD STREET • MEMPHIS, TENN.

'57 CHEVROLET - 12 PASSENGER SPORT CRUISER

Powerful! Profitable! This new 12-passenger Stageway SPORT CRUISER will give new prestige, new rider-appeal to your lines. BASE price $4125.00 *Also available: sporty 12-passenger Station Wagon Coaches, and rugged 15-passenger Carry-Alls.* **We've A Nice Selection of Guaranteed Late Model Stageway Used Coaches.**

Call, write, or wire Dave Moore

QUEEN CITY CHEVROLET CO.
NATIONAL DISTRIBUTORS
6th & Sycamore—Cincinnati, Ohio
PArkway 1-4880—Night No. MYrtle 7-2604

REPRESENTATIVES WANTED

Who are now calling on truck, bus and auto fleets. Proven new product with enormous repeat business. Our free test plan lets customer try before buying. One account can mean over $250 per week in commissions. Write Petrelab, Box 175, Dept. F.O. Englewood, Colo.

WANTED

SUPERINTENDENT OF MAINTENANCE
Must know G.M.C. Diesel Units. Write
P-6508 FLEET OWNER
Class Adv. Div., P.O. Box 12, N. Y. 36, N. Y.
for Interview.

HOLMES WRECKER

Government surplus 10 ton twin boom Holmes wrecker, like new but priced at only $1445.00. Phone Charles E. Bailey.

Memphis Equipment Co.
766 S. Third, Memphis, Tenn. JAckson 5-7841

WANTED

Sports Cruiser, Station Wagon Coach or similar 12 to 14 passenger bus. Chevrolet motor. State year, price and condition in first letter.

WRITE LEE WALL, Owner
Superior-Lincoln Stages
Superior, Nebraska

WANTED—DISCARDED

GM71 Old Style & HV Series Injectors & Parts. Top Money Paid.

Cassidy, 7120 Carnegie Avenue
Cleveland 3, Ohio

FOR SALE

1—37 passenger 1955 Flxible Two Level coach. Diesel powered—Air conditioned—Excellent condition and low mileage.

Sedalia, Marshall, Boonville Stage Line, Inc.
1700 East Court, Des Moines 16, Iowa.

FOR SALE—TRANSIT COMPANY

Nineteen bus, debt-free, upstate Pa. Corp. Service in area since 1890. Excellent opportunity for medium sized owner-management operation. For complete brochure and further information contact

BO—6707 Fleet Owner
Class. Adv. Div., P.O. Box 12, N.Y. 36, N.Y.

New "SEARCHLIGHT" Advertisements

received by Jan. 16th will appear in the February issue subject to limitations of space available.

Classified Advertising Division

FLEET OWNER

Box 12 New York 36, N. Y.

This

SEARCHLIGHT SECTION of FLEET OWNER

is available for announcements of interest to the men in charge of fleets: Positions Wanted or Available, Selling Opportunities both Offered and Wanted, used and surplus new trucks, trailers and tractors and equipment, etc. For information and rates write

Classified Advertising Division

FLEET OWNER

P. O. Box 12, New York 36, N.Y.

he's working for you

THIS FELLOW IS TRAINED IN YOUR BUSINESS. His main duty is to travel the country – and world – penetrating the plants, laboratories and management councils . . . reporting back to you every significant innovation in technology, selling tactics, management strategy. He functions as your all-seeing, all-hearing, all-reporting business communications system.

THE MAN WE MEAN IS A COMPOSITE of the editorial staff of this magazine. For, obviously, no one individual could ever accomplish such a vast business news job. It's the result of many qualified men of diversified and specialized talents.

AND, THERE'S ANOTHER SIDE TO THIS "COMPOSITE MAN," another complete news service which complements the editorial section of this magazine – the advertising pages. It's been said that in a business publication the editorial pages tell "how they do it" – "they" being all the industry's front line of innovators and improvers—and the advertising pages tell "with what." Each issue unfolds an industrial exposition before you – giving a ready panorama of up-to-date tools, materials, equipment.

SUCH A "MAN" IS ON YOUR PAYROLL. Be sure to "listen" regularly and carefully to the practical business information he gathers.

McGRAW-HILL PUBLICATIONS

211 New Buses Delivered in November

BASED ON MONTHLY REPORTS from the manufacturers, this list is as complete as we can make it. But not all manufacturers report regularly, so we can't claim to be 100% complete. You'll find the cumulative total for 1957 at the end. *Note: The two final digits indicate seating capacity.*

Arrow Line, The (Conn.)
1 GMC—TDM-4515—45
Bee Line, Inc. (N. Y.)
10 GMC—TDH-5106—51
Camden & Burlington Counties Bus Co. (N. J.)
1 GMC—TDM-4515—45
Delaware Coach Co. (Dela.)
12 GMC—TDH-4512—45
Duluth-Superior Transit Co. (Minn.)
8 GMC—TDH-5105—51
Inter-County Motor Coach, Inc. (N. Y.)
1 GMC—TDH-5106—51
Irving Transit Co. (N. J.)
1 GMC—TDH-4512—45
Knoxville Transit Lines (Tenn.)
4 GMC—TDH-4512—45
Manhattan Transit Co. (N. J.)
2 GMC—TDM-4515—45
Middlesex & Boston Street Railway Co. (Mass.)
10 GMC—TDH-4512—45
N.Y.C. Transit Authority (N. Y.)
66 GMC—TDH-5106—51
Oceanside Transportation System (Calif.)
3 GMC—TDH-4512—45
Peter Pan Bus Lines, Inc. (Mass.)
1 GMC—TDM-4515—45
Phoenix, City of (Ariz.)
3 GMC—TDH-4512—45
Red and Tan Lines, Inc. (N. J.)
5 GMC—TDM-5106—51
2 GMC—TDM-5108—51
Southeastern Greyhound Lines (Ky.)
20 GMC—PD-4104—41
Southern Coach Lines, Inc.
6 Southern—S-41—41
Springfield Street Railway Co. (Mass.)
8 GMC—TDH-4512—45
2 GMC—TDM-4515—45
Westwood Transportation Lines, Inc. (N. J.)
3 GMC—TDM-4515—45
Worcester Bus Co. (Mass.)
8 GMC—TDH-4512—45
2 GMC—TDM-4515—45
Zanetti Bus Line (Wyo.)
1 GMC—TDM-4512—45

MISCELLANEOUS DELIVERIES
Continental Air Transport, Inc. (Ill.)
1 Flxible—218WA1-57—29IC

FOREIGN DELIVERIES
General Motors Products of Canada, Ltd. (Canada)
30 GMC—TDH-4512—45

Total reported for 1957: 3154

WHERE TO BUY

CAR WASHERS

AUTOMATIC ALL PURPOSE SYSTEM REVOLUTIONIZES VEHICLE WASHING

WRITE FOR INFORMATIVE FOLDER

Wohlert Corporation
LANSING 5 MICHIGAN

No Charge for Sketch
Send for Samples
DECALS
PLASTIC
BRILLIANT
TOUGH
MADE TO YOUR SPECIFICATIONS
ALLIED DECALS INC. 8384 HOUGH AVE. CLEVELAND 3, OHIO

USE THIS

Where-To-Buy Section to promote new users and new uses for your product, to reach the important buying influences in the bus-truck field—and you can do it economically. For information just write to Where-to-Buy, FLEET OWNER, P. O. Box 12, New York 36, N. Y.

BETTER THAN HYDRAULIC LIFTERS

Push Rod Type

Increase
Acceleration
Top Speed
Power
Gas Mileage
Valve Life

SKINNER AUTOMATIC Valve Adjustors

Replace both solid and hydraulic lifters. They quiet the valves and increase efficiency and power. An important result is cooler valves, longer valve life, less downtime for valve adjustment.

Write for details

Allied Precision Products FO.
Dunedin, Florida

Name .....
Address .....
City ..... State .....

Vertical high lift . . .

. . . is a Marion VL-6260 lift hoist, which quickly raises or lowers a special 6300-lb capacity cargo platform, to cut loading time in half for Delta Air Lines. Lift mechanism and platform are mounted on a modified Dodge P-400 truck chassis, which pulls right up to planes on the airport runway. The heavy-duty chassis is a highly modified walk-in type delivery unit, with shortened wheelbase and lowered frame. The truck, without a cab or windshield, has a 64½-in. clearance and will fit under most airplanes. Delta is using a fleet of 13 of these plane loaders, designed and manufactured by Marion Metal Products Co., Marion, Ohio. They are in operation at terminals in 11 cities.

It was a big job . . .

. . . that confronted Bigge Drayage Co., of Oakland, California. This 455,000-lb generator-stator had to be transported for six miles. To do the job, a total of 133 wheels was used on a series of truck tractors. The main unit consisted of a Peterbilt 240 tractor towing a double gooseneck low-bed trailer and four dollies, which carried the rear bolster. The stator rested on two steel beams (weighing 300 lb per ft) suspended between front and rear bolsters. This combination, plus the two tractors that pushed and the two that pulled, stretched out to an over-length of 160-ft. The four tractors that pushed and pulled provided enough power and bracing to handle the hills.

BRAKE BLOCKS • **SCANDINAVIA** • BRAKE LININGS

DIVISION OF SCANDINAVIA BELTING COMPANY, 744 BROAD ST. (P.O. BOX 464) NEWARK 1, N. J.
WAREHOUSE: 250 CENTRAL AVE., NEWARK 1, N. J. • PLANT: CHARLOTTE 1, N. C.
BRANCHES IN CAMBRIDGE, MASS. AND CLEVELAND, OHIO

two of the most famous names in cleaning combine in a single product

Clayton-SELLERS COMBINATION STEAM and HYDRAULIC JET CLEANER!

Clayton Manufacturing is proud to announce a new, revolutionary type of steam and hydraulic cleaner. The Clayton-Sellers is designed specifically for cleaning off highway, fleet, marine, petroleum and heavy industrial equipment of every type.

STEAM CLEANING: As a steam cleaner it sets new records in performance—280 gallons per hour of high impact... hard-hitting... steam cleaning solution. All that can be handled through a single gun without undue operator fatigue. Produces maximum cleaning results at minimum cost. Introduces the new exclusive "Fleximatic Control"... it automatically regulates fuel and water, permitting operator to use all or part of the 280 gallon per hour capacity from one or two guns.

SAVES FUEL... SAVES TIME... CLEANS FASTER AND BETTER

HYDRAULIC JET CLEANING: For cleaning operations requiring large volumes of water at high impact with varying degrees of temperature. The heavy duty hydraulic delivery provides up to 600 gallons per hour up to 220 psi and 210°F. Delivers hot water power cleaning "jet" action with or without detergents, at velocities exceeding 150 ft. per second for maximum scrubbing and rinsing. The "JET" is effective up to distances of 50 feet or more.

HIGH VOLUME... HIGH PRESSURE... HIGH TEMPERATURE SOFTENS... LOOSENS... REMOVES

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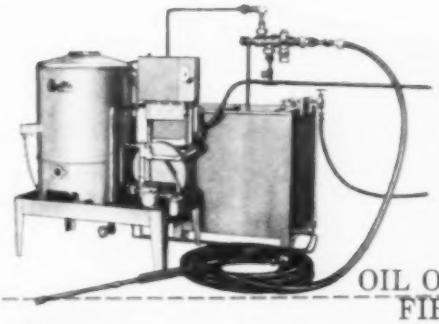

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ACROSS THE EDITOR'S DESK

IF YOU'RE LOOKING FOR *"Passenger Car Operation"* on this page, you'll find we've moved it to page 16. From now on this last page of the book will be called *"Across the Editor's Desk."* It will be used for a variety of purposes. Some months you'll find most of the page devoted to the traditional editorial. Some months it will contain a series of shorter items. One or two of them might be short editorials and the rest might be reports on visits made by readers to FLEET OWNER's office. In short, the content of this page will be informal . . . made up of items that will be or should be of interest to you.

This change (along with the three others described in the *"Story Behind the Story"* on p 9) was made for several reasons. First, editorials appeal only to a certain number of readers. Matter of fact, on the subject of editorials you can usually put readers into two groups: those who almost always read editorials and those who almost always don't. And those who don't read editorials outnumber those who do. So, we thought, why not try to develop a page that would have interest for both types of readers?

This is the result. We can use it for editorials if they're necessary. We can also include other items when they come up. Which brings us to the second reason for the change: in every month many things go on in the FLEET OWNER offices which would be of interest to many of our readers. But we've had no place to publish them in the magazine because they're not news stories, not feature stories, and not subjects for editorials.

For example, suppose one of our readers flies up to New York to ask for help on a problem. The questions he asks and the answers we're able to give might be helpful to a large percentage of our readers. Up to now, though, we've had no place to print the information. But with the development of this page, we have an excellent spot for this type of informal reporting.

The third reason for the change is that to FLEET OWNER editors an editorial must have two qualities: it must be on a really important subject and it must stimulate some plan of action. In our judgment, if the subject doesn't warrant this kind of editorial, the page is wasted. *"Across the Editor's Desk"* solves that problem.

The fourth reason for the change was the position of this page in the magazine. In the last six months we've had a problem with the *"Passenger Car Operation"* page that formerly occupied this space. We had too much information to go on one page and we had no place to continue the page. So, by moving it up toward the front of the magazine, we'll now be able to run *"Passenger Car Operation"* a page and a half or two pages if we have enough good information.

Well, those are the four major reasons for the change. We'll be interested to hear what you think of the idea. If you have any thoughts on the subject, we'd be happy to hear from you. And, if you're in New York, come in to see us—we'll welcome the chance to exchange ideas with you.

Sales gimmick: If you're looking for an unusual promotional idea, take a look at the 45 rpm record RCA is using to sell 2-way radio. It contains three testimonials for their product. Our guess is that the curiosity factor will get over 90% of the records played at least once. The idea can be used by any company that can get good testimonials for their product. And it's a painless way of getting your sales story across.

For the record: We wonder where the railroads would be today if they'd taken 10% of the money they've spent lobbying and advertising against the trucking industry and put it into hiring and training a new group of "hot shot" executives?

What's the "vehicle impression" factor of your fleet? If you even suspect you can do a better job of paint design, you'll be interested in reading Howard Ketcham's article on color on page 61. He's just joined the FLEET staff as consultant in color and design.

Caswell Speare
Editor

INSIDE STORY OF INTRA-PLANT MOVEMENT

"Wouldn't stay on this job a minute without the CEMCO TRAILER JOCKEY"

Take a look at your intra-plant problem. Maybe you can take a leaf out of Consolidated Paper's book.

Driver Gil Runyon (pictured above, at left), eleven year employee of Consolidated Paper Company (Monroe, Mich.), knows a good thing when he has it.

The "spotter," as Gil calls the CEMCO Trailer Jockey, works two tricks a day regularly and puts a sturdy shoulder under 75 to 100 trailers daily. This has been going on for about five years — with a considerable dose of "round-the-clock" operation during the first year. Trailers, flat beds, liquid tankers — they all need spotting. Incoming bodies loaded with scrap paper need to be weighed before and after unloading, etc. Net result: The CEMCO "spotter" is just about the busiest and most respected piece of trucking equipment on the premises.

"South side . . .

West side . . .

all around the town"

Hydraulic power under the 5th wheel — 37,500 to 65,000 pounds upward heave, cab-operated! No hand-cranking of landing gear! Takes *seconds* where it used to take minutes.

Consolidated's three plants in Monroe, Michigan, are all within a couple of miles of each other. From one plant to another there are half a dozen railroad crossings and the usual quota of ups and downs. Consolidated could not possibly move up to 100 trailers daily with one tractor, using the hand-cranking of landing gear.

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